INSTALLATION INSTRUCTIONS

Harmony Nexus™ Equipment Management System
Fixed Height Arm Series

(Rev. C 05/01/13) **10015339**

A WORD FROM STERIS CORPORATION

This manual contains important information on the installation procedures for the Fixed Height Arm Series of the Harmony Nexus™ Equipment Management System. Follow each step of the installation instructions **in the order presented.** If you find any indication of damage to the equipment (no matter how slight), show it to your supervisor.

To properly install this unit, you will need the Equipment Drawings (previously furnished), showing all utility service and space requirements. If drawings cannot be located, replacement copies may be obtained by writing, faxing or telephoning STERIS giving the serial and model numbers of your equipment.

Once installed, equipment operation should be tested by a qualified service technician prior to your usage of the equipment. Any ancillary equipment (i.e., monitors, video recorders, etc.) that is to be used with the Harmony Nexus Equipment Management System must comply with all applicable medical equipment standards.

If STERIS supervision is desired for installing and starting up this equipment, contact your local STERIS representative.

Indications for Use

For use in hospital facilities where there is a need for ready access to medical gases, electrical power and audio/visual data services. Harmony Nexus Equipment Management System (EMS) organizes surgical equipment such as endoscopy equipment, laparoscopic equipment, cautery devices, insufflators, etc. Harmony Nexus EMS units help hospitals to improve efficiency and safety, and to maximize total room workflow by ergonomically centralizing all surgical support equipment:

- As individual unit or in combination with the ceiling supply units of the Harmony Nexus Equipment Management System
- For communicating and exchanging data, e.g., telephone, nurse's call button or computer networking
- For the ergonomic positioning of medical equipment during use
- For supplying medical equipment with electrical power and medical gases
- To provide additional instrument trays, shelves and supports

The intended user for this equipment includes OR, ER/Trauma Room, Ambulatory Surgery Center and ICU staff.

Advisory

A listing of the safety precautions to be observed when installing and testing this equipment can be found in *SECTION 1, SAFETY PRECAUTIONS* of these instructions. Do not begin installing this equipment until you have become familiar with this information.

IMPORTANT: Be sure to check the Occupational Health and Safety Act, as well as local electric and plumbing codes, for any special requirements that may pertain to installation of this unit.

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Environmental Conditions

Transport and Storage

NOTE: *The following storage conditions apply for up to 15 weeks.*

- Temperature: 13 to 158°F (–11 to +70°C)
- Relative Humidity: 10 to 75%
- Barometric Pressure: 0.5 to 1.05 atm STD atmospheric pressure (500 to 1060 hPa)
- Store only in closed or covered spaces. After 15 weeks, the values for the Operational Location Requirements (below) apply.

Operational Location Requirements

- The equipment is not suitable for operation in areas where there is an explosion hazard.
- The Harmony Nexus Equipment Management System is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.
- The ambient temperature during operation must be kept between 50 and 104°F (10 and 40°C)
- Relative humidity should stay within a range of 30 to 75%.
- Atmospheric pressure should stay within a range of 0.7 to 1.05 atm STD atmospheric pressure (700 to 1060 hPa).

STERIS Corporation
2720 Gunter Park East
Montgomery, AL 36109 • USA

Class 1 Equipment

Type B Equipment

Ordinary Equipment (enclosed equipment without protection of ingress of water)

Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or oxygen or nitrous oxide.

Suitable for continuous operation.

Canada Only:

Nonflammable medical gas pipeline systems shall comply with CSA Z7396-1.

Electrical installations in healthcare facilities shall comply with CSA C22.1 and CAN/CSA-Z32.

Anesthetic gas scavenging systems shall comply with CSA Z7396.2.

STERIS Corporation, Montgomery, Alabama is an ISO 13485 certified facility.

The base language of this document is ENGLISH. Any translations must be made from the base language document.

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SAFETY PRECAUTIONS

1

The following *Safety Precautions* must be observed when operating or servicing the Harmony Nexus™ Equipment Management System. WARNING indicates the potential for personal injury and CAUTION indicates the potential for damage to equipment. For emphasis, certain *Safety Precautions* are repeated throughout the manual. It is important to review ALL *Safety Precautions* before operating or servicing the unit.

Strictly following these *Safety Precautions* enhances the Customer's ability to safely and effectively utilize the unit and helps avoid improper maintenance methods which may damage the unit or render it unsafe. It is important to understand that these *Safety Precautions* are not exhaustive; Customers are encouraged to develop their own safety policies and procedures to enhance and complement these *Safety Precautions.*

WARNING – EXPLOSION HAZARD:

The ceiling mount system must not be installed where flammable gases or anesthesia are or will be used. This equipment is not designed for use in a hazardous location as defined in National Fire Protection Association (NFPA) Flammable Anesthetics Code.

WARNING – PERSONAL INJURY HAZARD:

After shipping frame and skid have been dismantled, unit can rotate freely. Do not lean against and/or use mounted unit for support.

Ensure ceiling gas supply lines are depressurized before removing protective caps.

Connecting electrical equipment to the multiple socket outlet (MSO) effectively leads to creating a medical electrical (ME) system, and the result can be a reduced level of safety.

WARNING – ELECTRIC SHOCK AND BURN HAZARD:

Disconnect all utilities to the unit before installation. Do not install unless all utilities have been properly locked out. Always follow OSHA lockout-tagout and electrical safety related work practice standards.

Disconnect all utilities to the Harmony Nexus Equipment Management System (EMS) before servicing. Do not service the EMS unit unless all utilities have been properly locked out. Always follow lockout-tagout and electrical safety-related work practice standards.

To avoid the risk of electric shock, this equipment must only be connected to a supply mains protective earth.

WARNING – PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD:

Repairs and adjustments to this equipment should be made only by fully qualified service personnel. Maintenance performed by inexperienced, unqualified personnel or installation of unauthorized parts could cause personal injury, invalidate the warranty or result in costly damage. Contact STERIS Service Engineering representative regarding service options.

Always lift the assembly of the Equipment Management System (EMS) where indicated by the "Lift Here" label applied to the packaging. Failure to lift the assembly where indicated could cause the unit to fall from the forks, causing equipment damage or personal injury.

Verify air source supplying air to the pneumatic brake system. Lockout/tagout the air source for the particular EMS unit before servicing.

Do not exceed maximum shelf load. Refer to **Table 7-1.**

The unit and shipping materials weigh approximately 1,000 lb (454 kg). To ensure safety, adequately rated equipment must be used to move or lift unit.

Two people are required to install the shelf.

Install covers with O-rings. Covers installed without O-rings may fall.

CAUTION – POSSIBLE EQUIPMENT DAMAGE:

Do not remove arm support shipping brackets or shipping frame from skid. Set up of supply column must be conducted with protective packaging intact.

Carefully rotate suspension arm/support head when adjusting rotational stops. Rotating the arm/support head completely around (360°) will twist and kink gas lines and electrical wires located inside the column.

Care should be taken not to damage bolts when lifting main unit.

When the pendant is in the down postion and no load is present, the gap *"X"* between the arm and the hinged joint must be no greater than 2.5 mm. The distance *"Y"* must not be less than 2.5 mm.

Be careful not to drop any hardware into the mouth of the distance tube while bolting flange to support arm.

Before adjusting stops, rotate the support head and lower arm counterclockwise, looking up at the instrument, until arm and support head are fully extended.

Verify Dimension "A" before beginning installation.

CAUTION – POSSIBLE EQUIPMENT DAMAGE (CONTINUED):

Never set up supply column without the packaging protection.

The following symbols may appear on the Harmony Nexus Equipment Management System and packaging:

Table 1-1. Definition of Symbols

Symbol	Definition
	Protective Earth (Ground)
or	Attention, consult manual for further instructions
	Serial Number of Unit
	Equipment or Reorder Number
	Symbol indicating the legal manufacturer name and address
	Symbol indicating the date of manufacture (yyyy/mm)
	Keep dry
	Fragile, handle with care
	Do not stack
	Symbol indicating high voltage

Table 1-1. Definition of Symbols (Continued)

Symbol	Definition
V~	Voltage Rating of Unit, Alternating Current
A	Amperage Rating of Unit
Hz	Frequency Rating of Unit

INSTALLATION CHECKLIST

2

2.1 Tools Required

- Lifting device (e.g., Genie® Lift™[1]) with minimum 600 lb (272 kg) capacity. If Equipment Management System (EMS) unit is greater than 600 lb (272 kg), then two lifting devices are required.
  - P764331-622, Lift, Material Genie, 350 lb (159 kg)
  - P764331-944, Genie Superlift, 650 lb (295 kg)
- Spirit level or digital level
  - P764335-021, Digital Level
- Open-end wrench 19 mm and 24 mm
- Torque wrench with standard and metric sockets
- Metric Allen wrench set
- Multimeter capable of measuring volts and ohms
- Volumetric Pressure Gauge
- LOCTITE® 242 (R005300-554 bottle, or 129377-290 single use 0.5 mL pouch)[2]
- Leak Detection Fluid
- Screwdrivers
- 30 mm open-end wrench

2.2 Hardware Required

The hardware listed below is referenced in these instructions. It is required for proper installation of this equipment, and is provided by STERIS unless otherwise noted.

- ❑ 7/8-9 UNC x 16" long allthread ASTM A354 Grade BD steel alloy (or SAE Grade 8), six required
- ❑ 7/8" flat washer, 24 required
- ❑ 7/8" lock washer, 12 required
- ❑ 7/8-9 UNC nuts, ASTM A354 grade BD (or SAE grade 8) steel alloy, 48 required
- ❑ Structural framework (not provided by STERIS)
- ❑ Structural mounting plate (not provided by STERIS)
- ❑ Two 6.0" (152 mm) dia. access holes required in center of plate
- ❑ Support hangers (not provided by STERIS)
- ❑ 24 x 24" (610 x 610 mm) access panel (not provided by STERIS)

1. *Genie® Lift™ is a registered trademark of Genie Industries, a Terex Company.*
2. *LOCTITE® is a registered trademark of Henkel Corporation.*

VERIFY SUPPORT STRUCTURE

3

WARNING – PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Unit and shipping materials weigh approximately 1000 lb (454 kg). To ensure safety, adequately rated equipment must be used to move or lift unit.

CAUTION – POSSIBLE EQUIPMENT DAMAGE: Care should be taken not to damage bolts when lifting main unit.

Before installing the Harmony Nexus™ Equipment Management System:

1. Verify Customer's ceiling mount meets dimensions as specified in Figure 3-1 and Figure 3-2.
2. Verify that hardware is on site (either in the room where the EMS unit is to be installed or hanging from the structural mounting plate). If hardware cannot be located, contact STERIS.

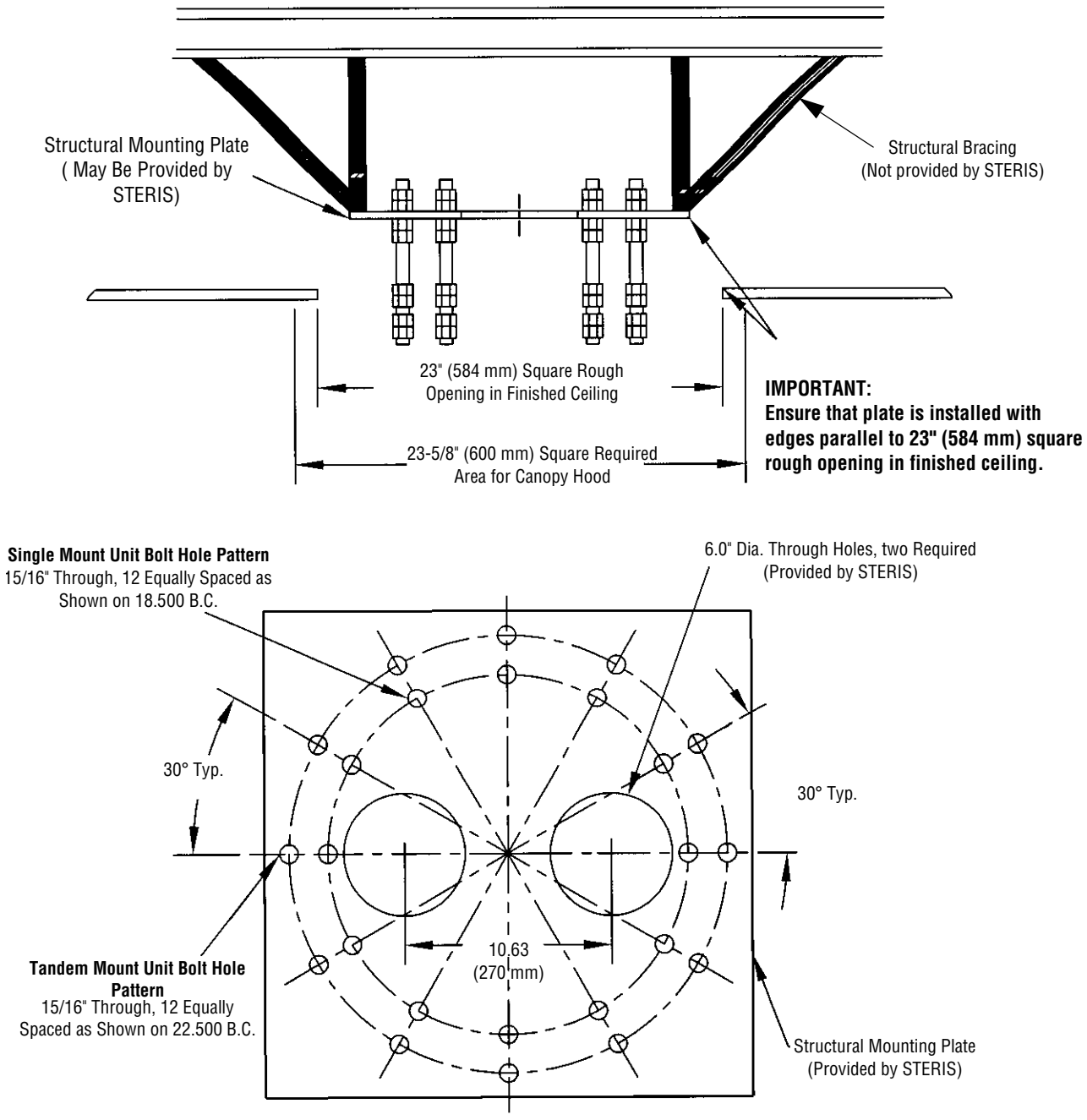


Figure 3-1. Above-Ceiling Support Structure

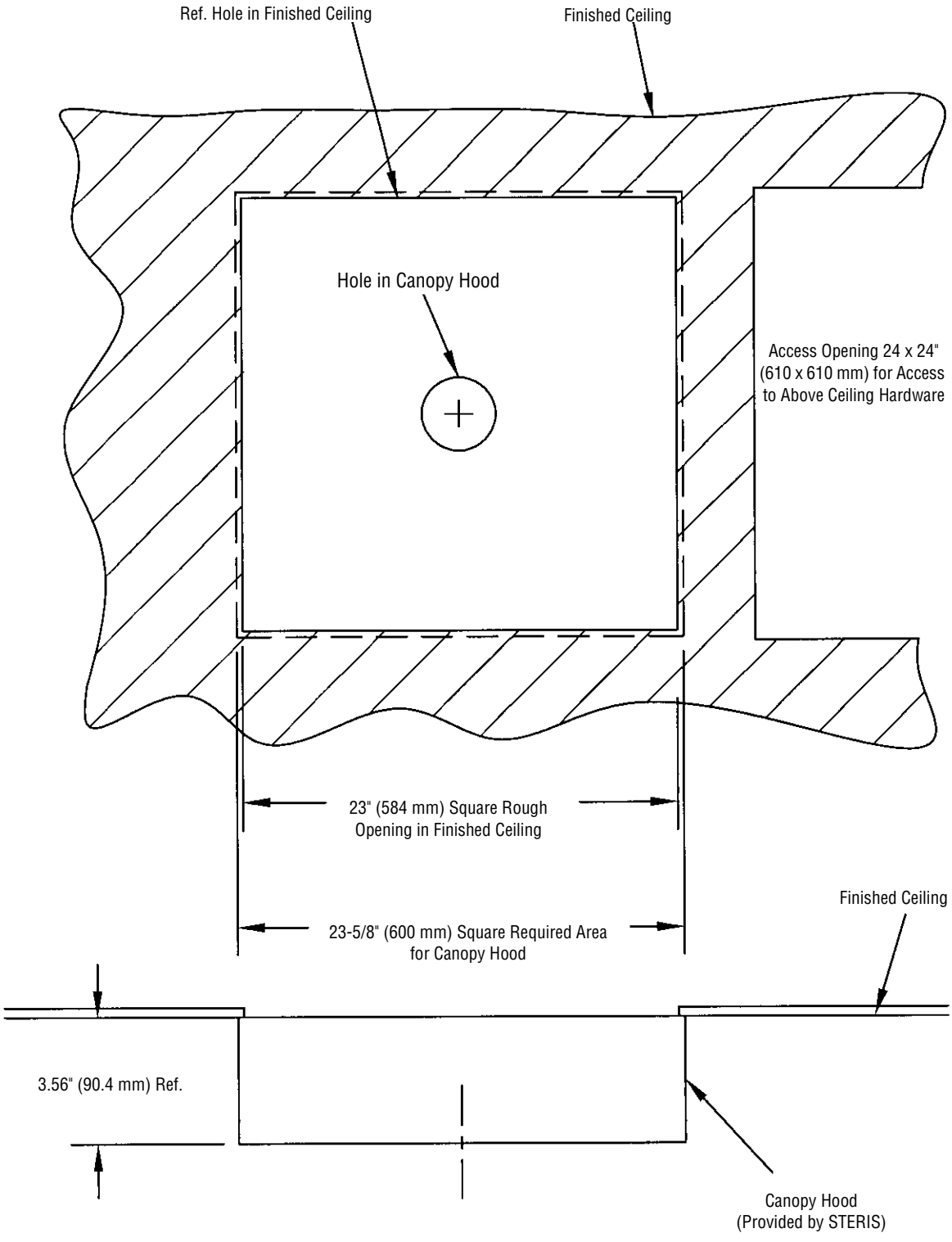
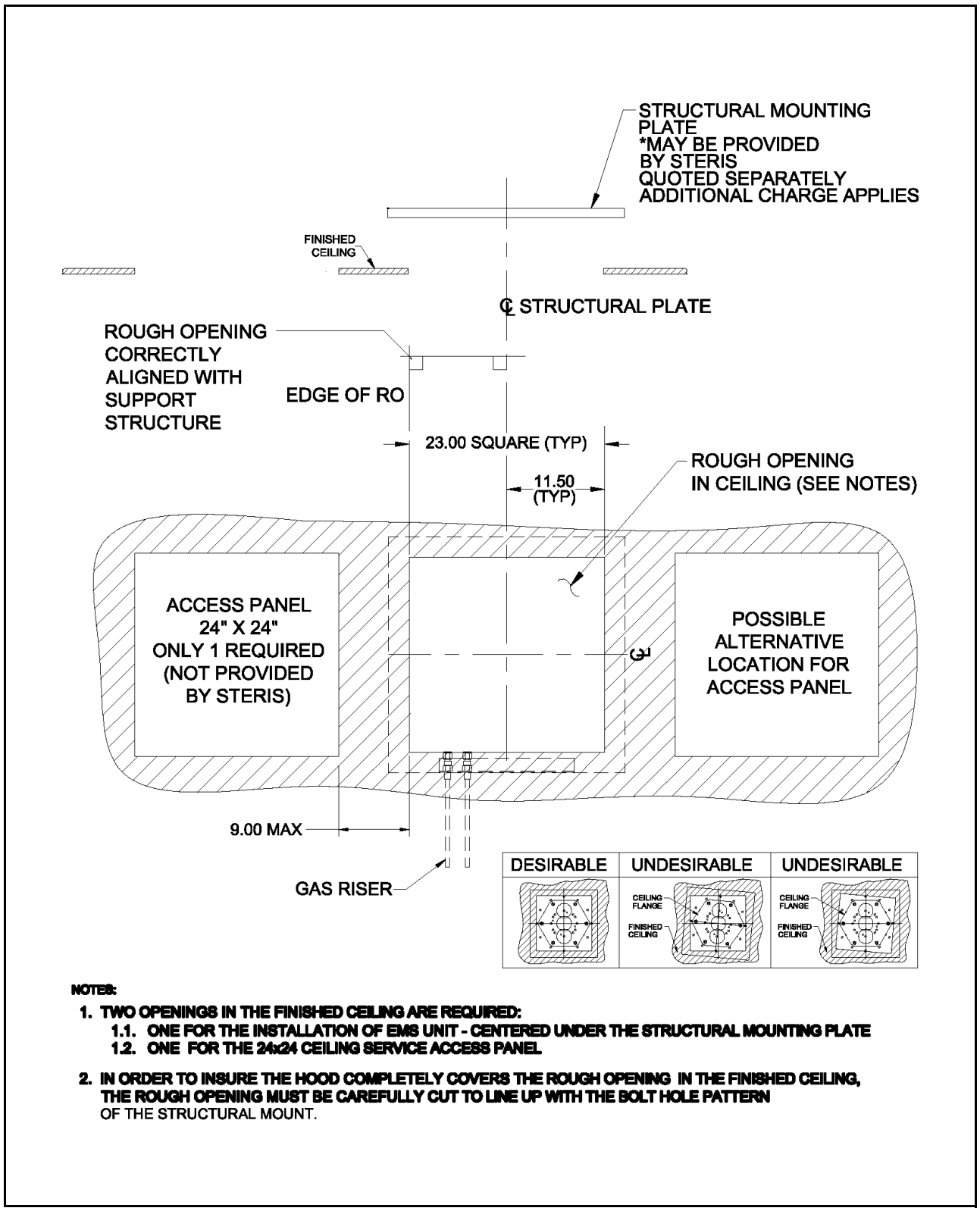


Figure 3-2. Ceiling Opening for Canopy Mount



NOTES:

1. **TWO OPENINGS IN THE FINISHED CEILING ARE REQUIRED:**
   - 1.1. **ONE FOR THE INSTALLATION OF EMS UNIT - CENTERED UNDER THE STRUCTURAL MOUNTING PLATE**
   - 1.2. **ONE FOR THE 24x24 CEILING SERVICE ACCESS PANEL**
2. **IN ORDER TO INSURE THE HOOD COMPLETELY COVERS THE ROUGH OPENING IN THE FINISHED CEILING, THE ROUGH OPENING MUST BE CAREFULLY CUT TO LINE UP WITH THE BOLT HOLE PATTERN** OF THE STRUCTURAL MOUNT.

Figure 3-3. Ceiling Access Requirements

OVERVIEW OF MOUNTING METHOD

4

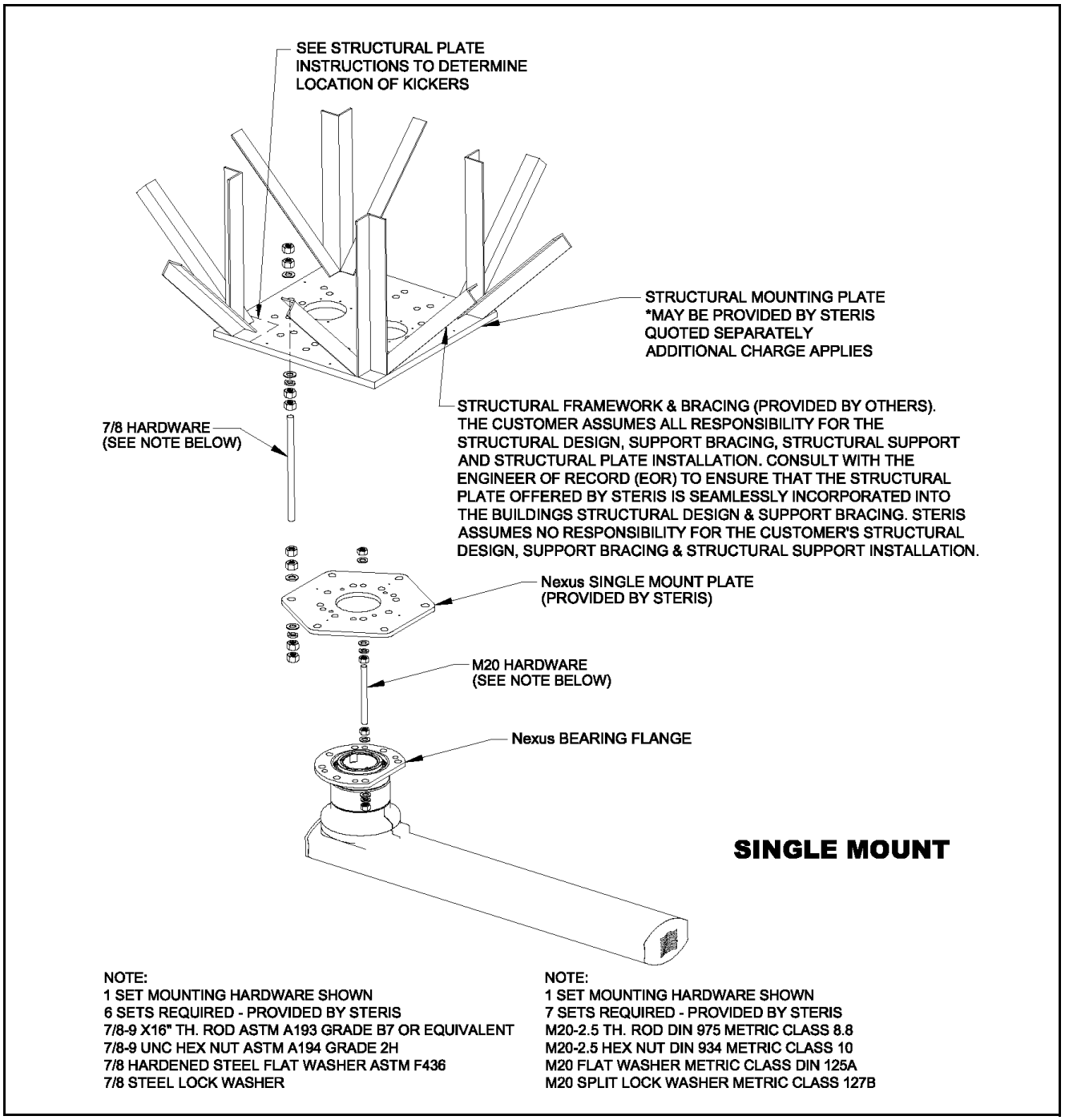

SEE STRUCTURAL PLATE
INSTRUCTIONS TO DETERMINE
LOCATION OF KICKERS
STRUCTURAL MOUNTING PLATE
*MAY BE PROVIDED BY STERIS
QUOTED SEPARATELY
ADDITIONAL CHARGE APPLIES
STRUCTURAL FRAMEWORK & BRACING (PROVIDED BY OTHERS).
THE CUSTOMER ASSUMES ALL RESPONSIBILITY FOR THE
STRUCTURAL DESIGN, SUPPORT BRACING, STRUCTURAL SUPPORT
AND STRUCTURAL PLATE INSTALLATION. CONSULT WITH THE
ENGINEER OF RECORD (EOR) TO ENSURE THAT THE STRUCTURAL
PLATE OFFERED BY STERIS IS SEAMLESSLY INCORPORATED INTO
THE BUILDINGS STRUCTURAL DESIGN & SUPPORT BRACING. STERIS
ASSUMES NO RESPONSIBILITY FOR THE CUSTOMER'S STRUCTURAL
DESIGN, SUPPORT BRACING & STRUCTURAL SUPPORT INSTALLATION.
7/8 HARDWARE
(SEE NOTE BELOW)
Nexus SINGLE MOUNT PLATE
(PROVIDED BY STERIS)
M20 HARDWARE
(SEE NOTE BELOW)
Nexus BEARING FLANGE
SINGLE MOUNT
NOTE:
1 SET MOUNTING HARDWARE SHOWN
6 SETS REQUIRED - PROVIDED BY STERIS
7/8-9 X16" TH. ROD ASTM A193 GRADE B7 OR EQUIVALENT
7/8-9 UNC HEX NUT ASTM A194 GRADE 2H
7/8 HARDENED STEEL FLAT WASHER ASTM F436
7/8 STEEL LOCK WASHER
NOTE:
1 SET MOUNTING HARDWARE SHOWN
7 SETS REQUIRED - PROVIDED BY STERIS
M20-2.5 TH. ROD DIN 975 METRIC CLASS 8.8
M20-2.5 HEX NUT DIN 934 METRIC CLASS 10
M20 FLAT WASHER METRIC CLASS DIN 125A
M20 SPLIT LOCK WASHER METRIC CLASS 127B

Figure 4-1. Overview of Mounting Details

IDENTIFYING MOUNTING PLATE TYPE & CANOPY TYPE

5

5.1 Mounting Plate Types

There are two types of mounting plates:

a. Single mount plate
b. Tandem mount plate

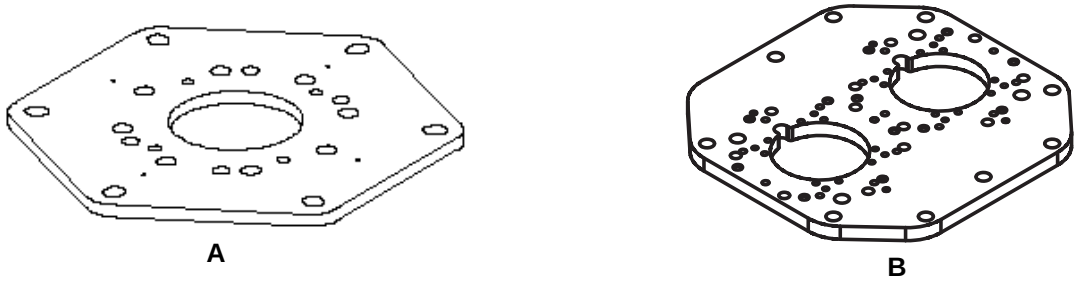


Figure 5-1. Mounting Plate Types

5.2 Canopy Types

There are four types of canopies

a. Hood Canopy Cover – for a Single Mount application
b. Flush Canopy Cover – for a Single Mount application
c. Hood Canopy Cover – for a Tandem Mount application
d. Flush Canopy Cover – for a Tandem Mount application

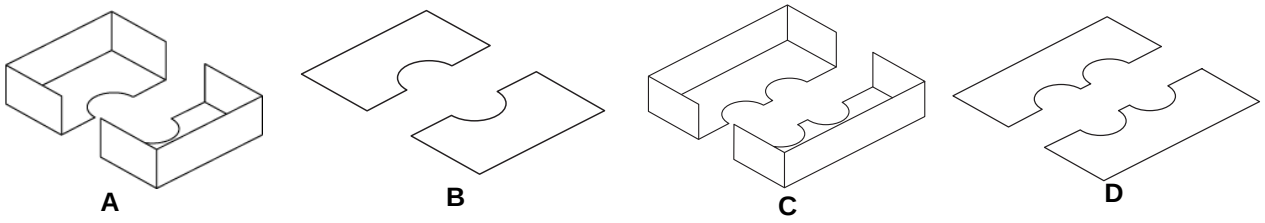


Figure 5-2a. Canopy Types

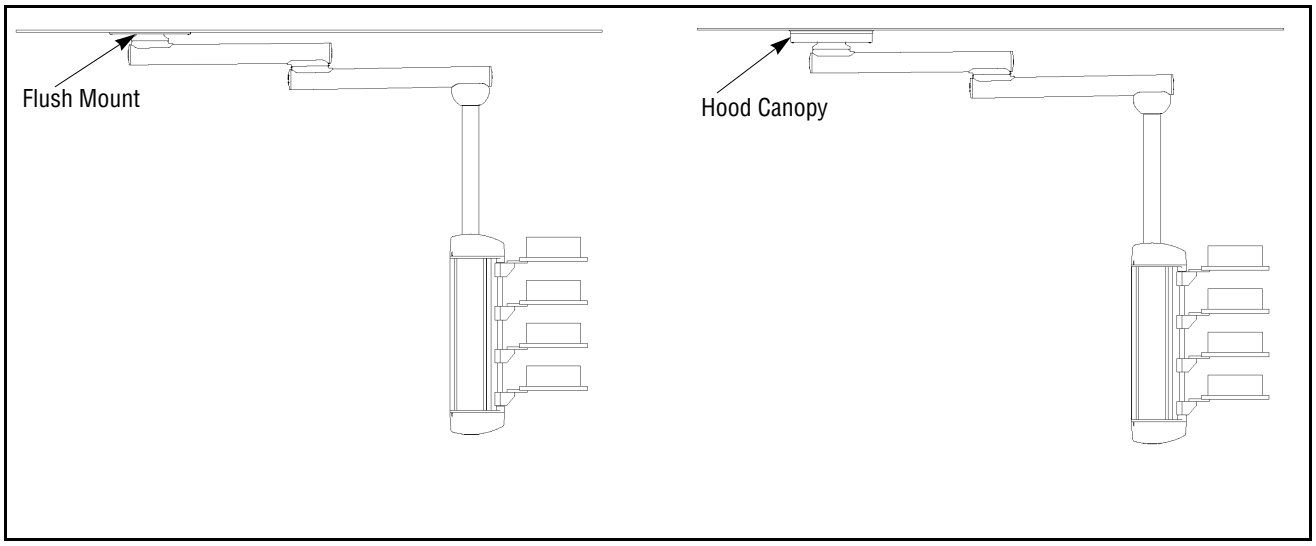
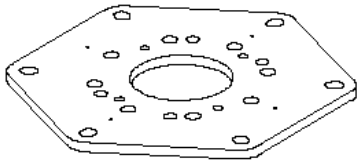


Figure 5-2b. Typical Mounting Configurations

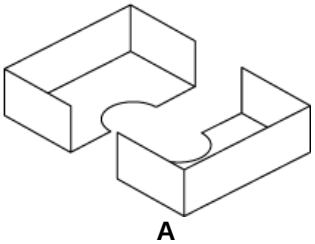
5.3 Overview of Mounting Configurations

Harmony Nexus EMS mounting configurations are made up from various combinations of the two types of mounting plates and the four canopy types.

1. Single mount unit
    - Single mounting plate
    - Hood canopy cover

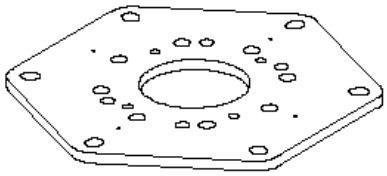


A



A

2. Single mount unit
    - Single mounting plate
    - Flush canopy cover



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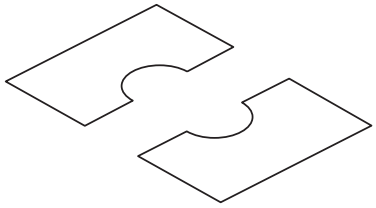
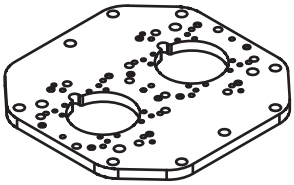


B

3. Tandem mount unit
    - Tandem mounting plate
    - Hood canopy cover



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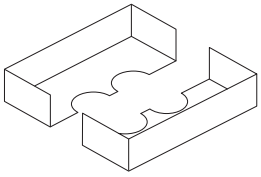
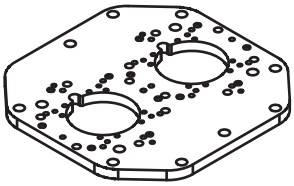


C

4. Tandem mount unit
    - Tandem mounting plate
    - Flush canopy cover



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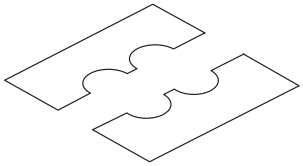


D

MOUNTING DETAILS FOR THE VARIOUS CONFIGURATIONS

6

6.1 Tandem Mount Unit – Hood Canopy Cover

Contact your STERIS sales representative (for further details).

6.2 Tandem Mount Unit – Flush Canopy Cover

Contact your STERIS sales representative (for further details).

6.3 Gas Riser Mounting

- The Gas Riser Mounting Bracket must be installed on the structural plate by using 1/4-20 UNC screws provided.
- 6" (152 mm) clearance is required above structural mounting plate for gas supply hook-up.

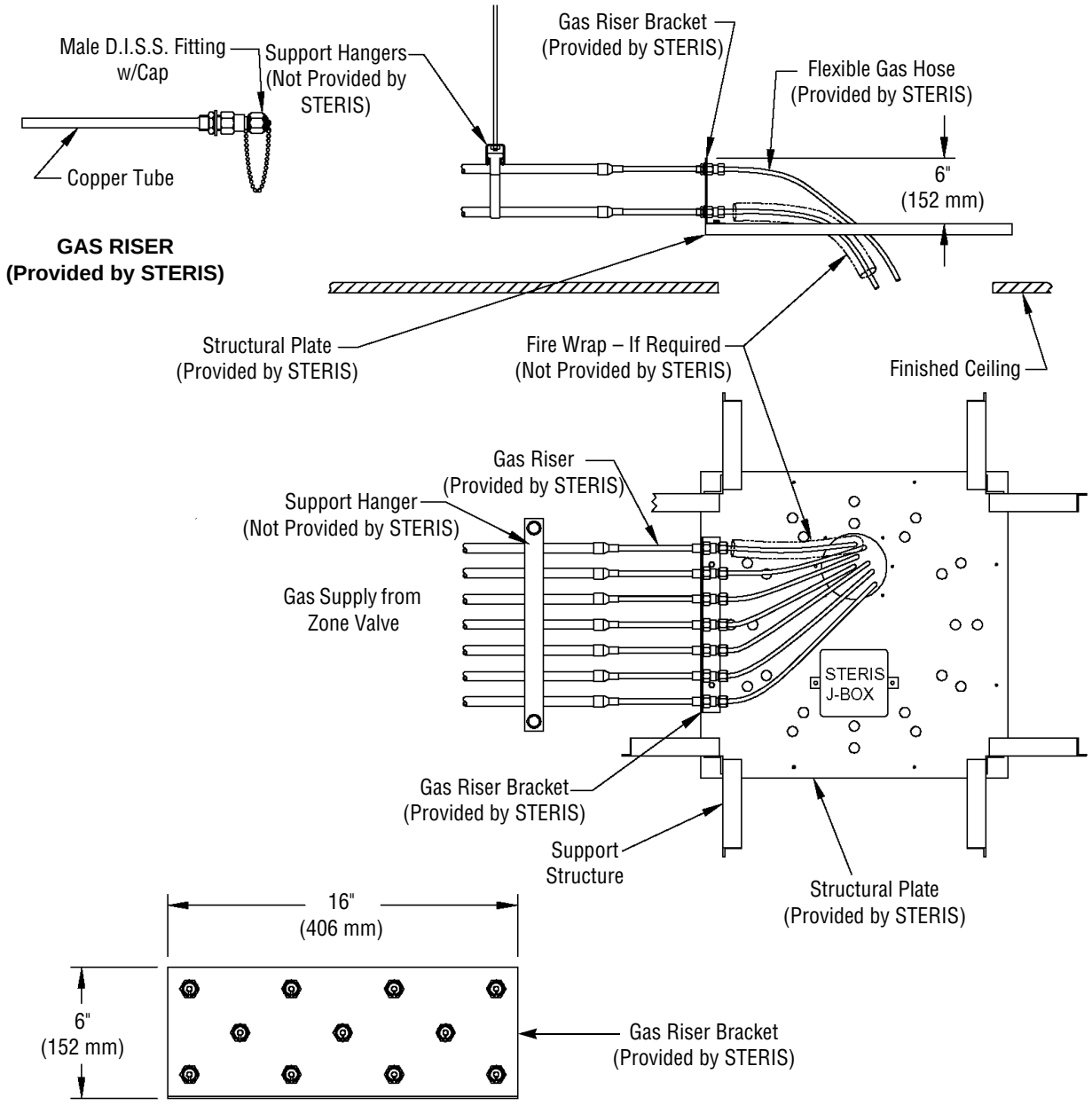

Male D.I.S.S. Fitting w/Cap
Support Hangers (Not Provided by STERIS)
Copper Tube
GAS RISER (Provided by STERIS)
Gas Riser Bracket (Provided by STERIS)
Flexible Gas Hose (Provided by STERIS)
6" (152 mm)
Structural Plate (Provided by STERIS)
Fire Wrap – If Required (Not Provided by STERIS)
Finished Ceiling
Gas Riser (Provided by STERIS)
Support Hanger (Not Provided by STERIS)
Gas Supply from Zone Valve
STERIS J-BOX
Gas Riser Bracket (Provided by STERIS)
Support Structure
Structural Plate (Provided by STERIS)
16" (406 mm)
6" (152 mm)
Gas Riser Bracket (Provided by STERIS)

Figure 6-1. Gas Riser Detail

Table 6-1. Gas Riser/Dust Cap Part Numbers (Domestic)

Gas Riser Part Number	Gas	Dust Cap Part Number
136812-668	WAGD	150824-808

Table 6-1. Gas Riser/Dust Cap Part Numbers (Domestic)

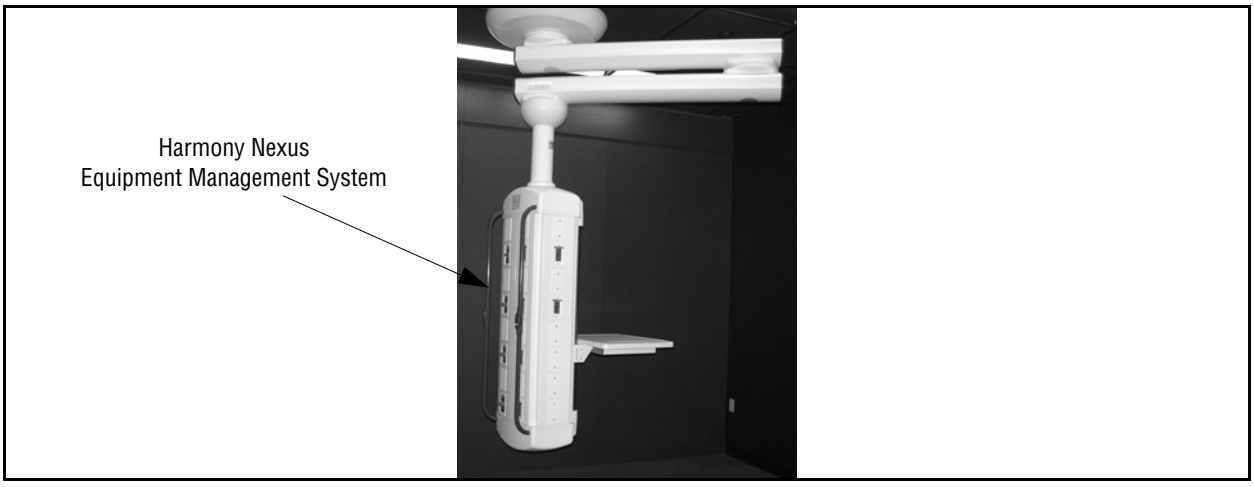
136812-669	Oxygen	150824-807
136812-670	Vacuum	150824-806
136812-671	Med Air	150824-806
136812-672	Nitrogen	150824-806
136812-673	Carbon Dioxide	150824-806
136812-674	Nitrous Oxide	150824-806

Table 6-2. Gas Riser/Dust Cap Part Numbers (Canadian)

Gas Riser Part Number	Gas	Dust Cap Part Number
136818-287	WAGD	150824-808
136812-286	Oxygen	150824-807
136812-285	Vacuum	150824-806
136812-290	Med Air	150824-806
136812-289	Nitrogen	150824-806
136812-291	Carbon Dioxide	150824-806
136812-288	Nitrous Oxide	150824-806

INSTALLATION

7



Personnel Required: (Two)

Personal Protective Equipment Required:

- Safety Goggles or Safety Glasses
- Gloves • Steel-Toe Shoes • Hard Hat

Special Tools:

- Lifting device (e.g., Genie® Lift™[1]) with minimum 600 lb (272 kg) capacity. If Equipment Management System (EMS) unit is greater than 600 lb (272 kg), then two lifting devices are required.
  - P764331-622, Lift, Material Genie, 350 lb (159 kg) capacity
  - P764331-944, Genie Superlift, 650 lb (259 kg) capacity
- Spirit level or digital level (P764335-021, Digital Level)
- Open-end wrench 19 mm and 24 mm
- Torque wrench with standard and metric sockets
- Metric Allen wrench set
- Multimeter capable of measuring volts and ohms
- Volumetric Pressure Gauge
- LOCTITE® 242 (R005300-554 bottle, or 129377-290 single use 0.5 mL pouch)[2]
- Leak Detection Fluid
- Screwdrivers
- 30 mm open-end wrench

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1. *Genie® Lift™ is a registered trademark of Genie Industries, a Terex Company.*
2. *LOCTITE® is a registered trademark of Henkel Corporation.*

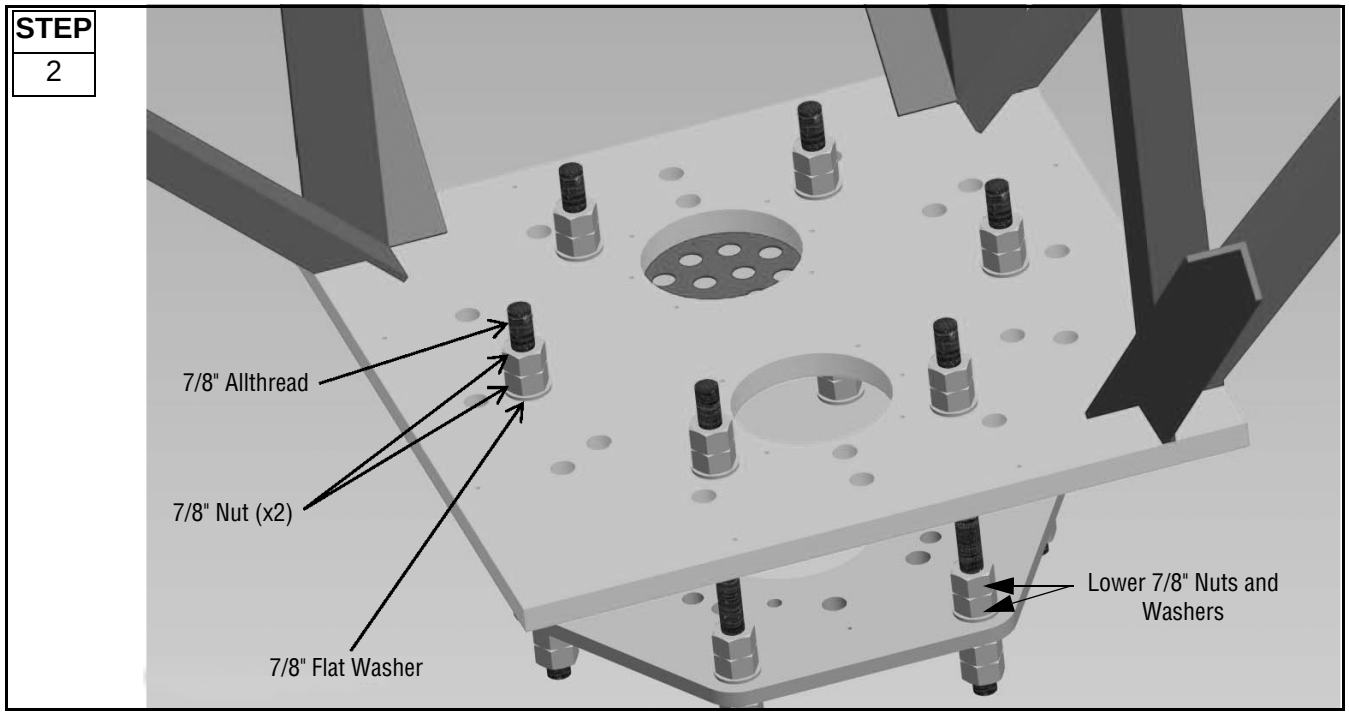
7.1 Install Harmony Nexus Equipment Management System

STEP
1

Step 1: Remove separate packages, miscellaneous mounting hardward and/or unattached accessories from shipping container.

NOTE: *Do not remove brackets/supports that hold the unit to the skid.*

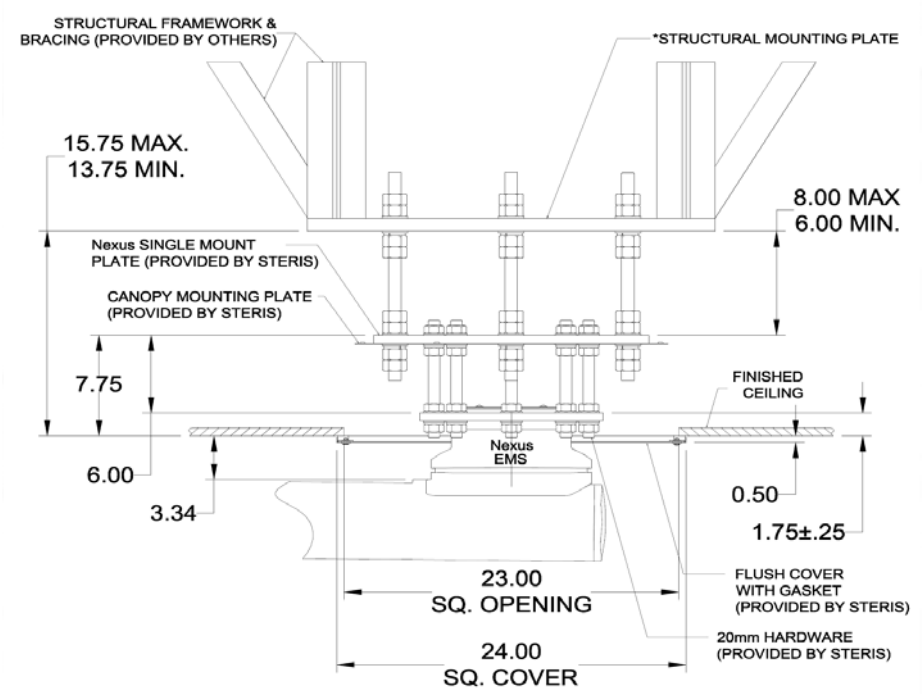
NOTE: *Verify any audio/visual cabling is present per sales order.*



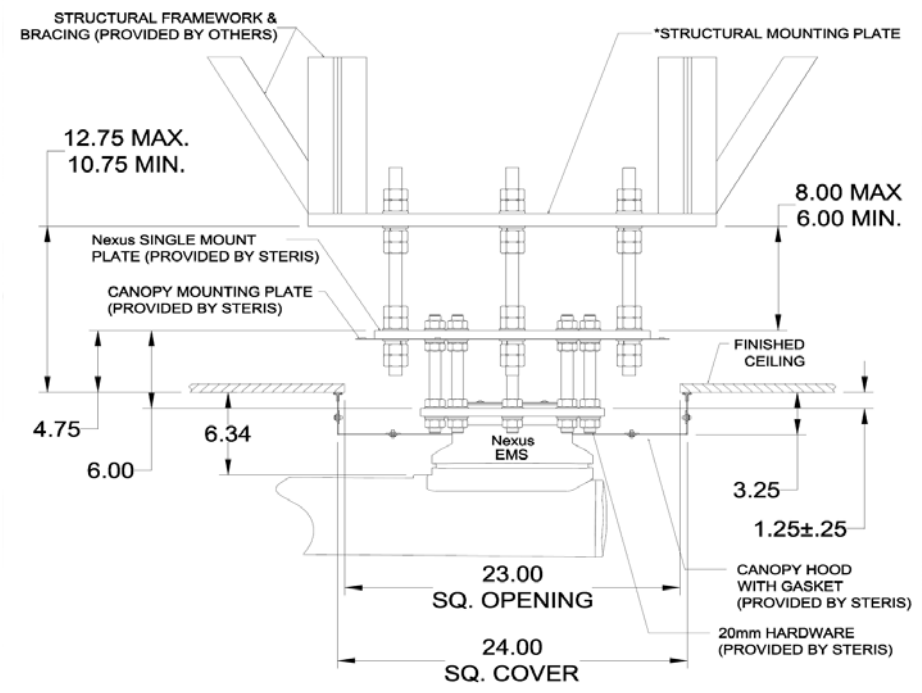
Step 2: Install Allthread, 7/8" nuts and 7/8" flat washers surrounding the structure plate.

- Install lower 7/8" nuts and 7/8" flat washers, such that the top of the mounting plate is 6-8" below the bottom of the structure plate.

STEP 3



Flush Cover

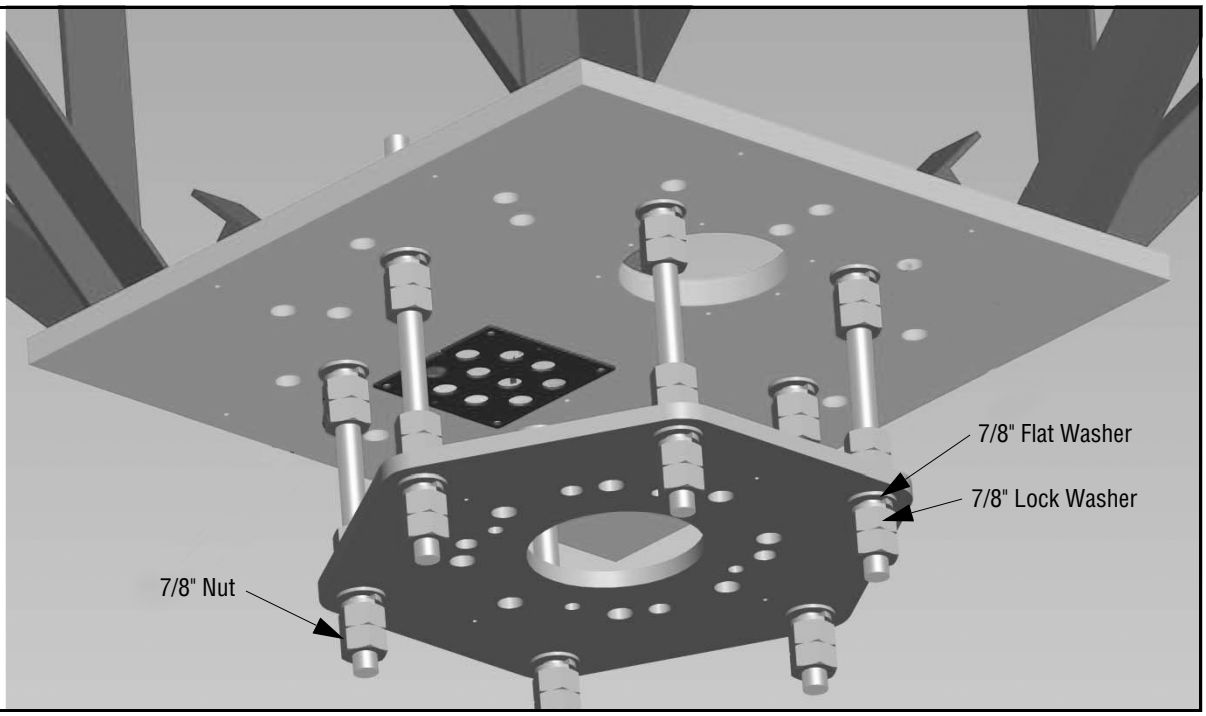


Canopy Hood

Step 3: Raise Nexus EMS single mount plate and canopy mounting plate to support structure.

NOTE: *Refer to Equipment Drawings for specific configuration.*

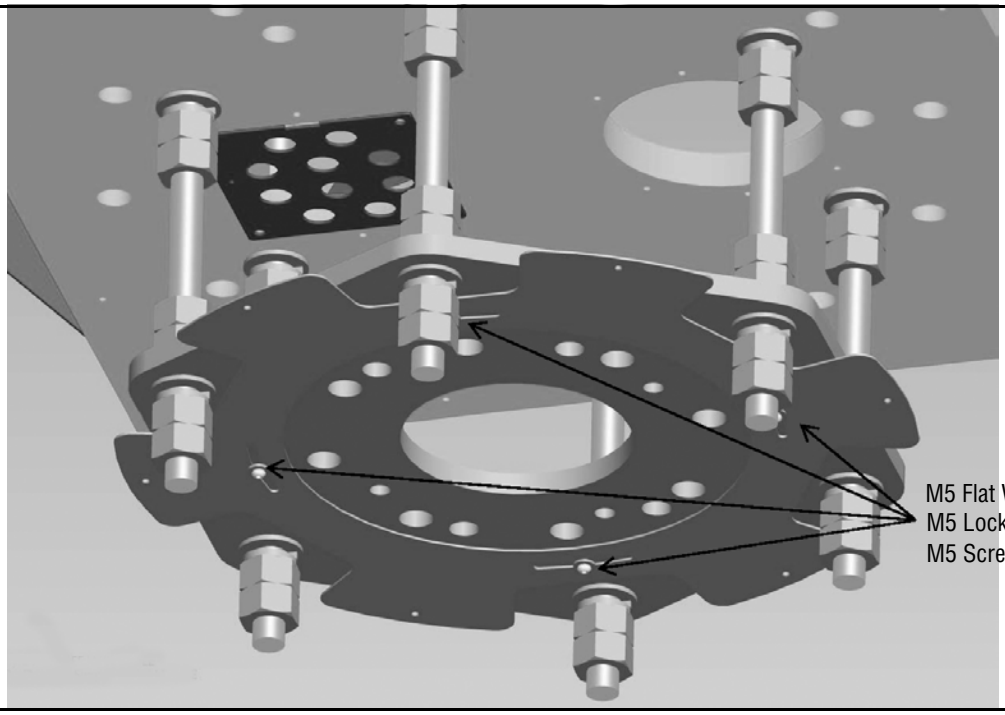
STEP
4



Step 4: Install 7/8" nuts, 7/8" flat washers and 7/8" lock washers.

- Level mounting plate with three or four nuts. When level, snug remaining nuts.
- Torque all 7/8" hardware to 80 ft•lb (356 N•m).

STEP
5

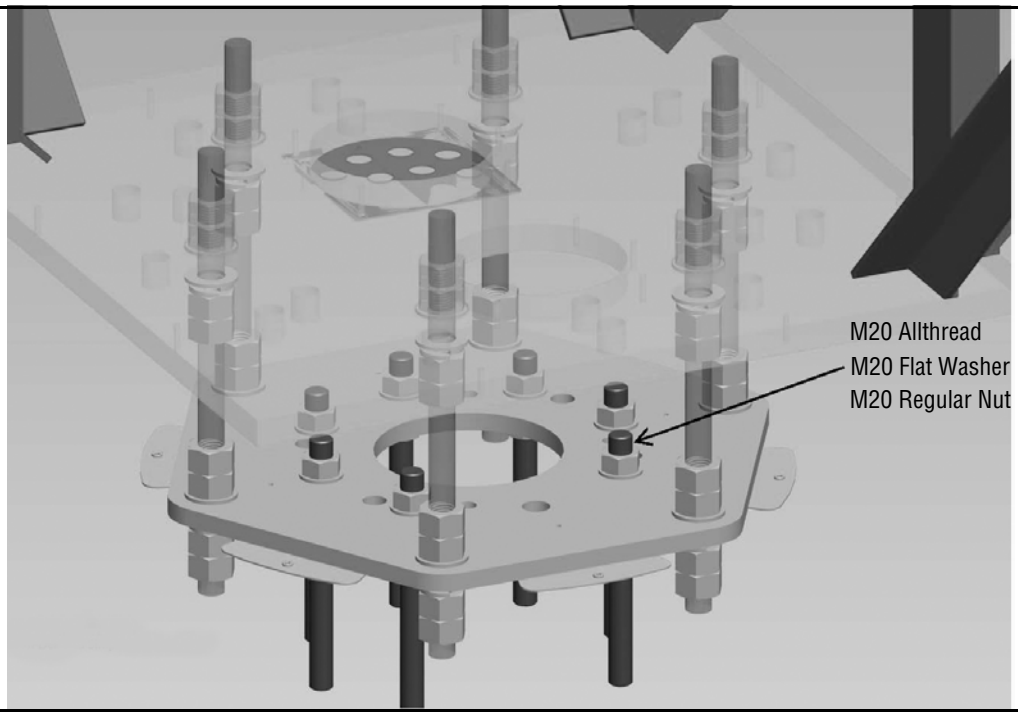


Step 5: Install M5 flat washers, M5 lock washers and M5 screws.

NOTE: *Canopy mounting plate mounts to the bottom of the mount plate with longer side of the pop rivet nuts oriented up.*

NOTE: *Slots in canopy mounting plate have arc shape in order to allow for canopy to be aligned with ceiling opening.*

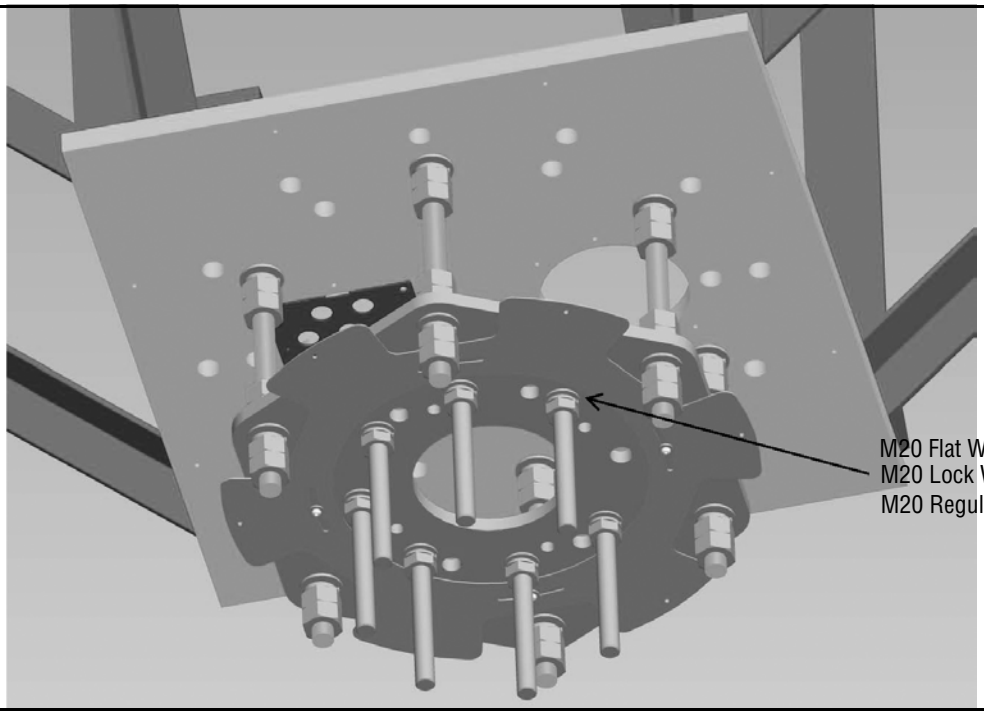
STEP
6



Step 6: Install M20 Allthread M20 x 9.125" long Allthread Grade 8.8 steel alloy.

- Install M20 flat washers and M20 regular nuts.

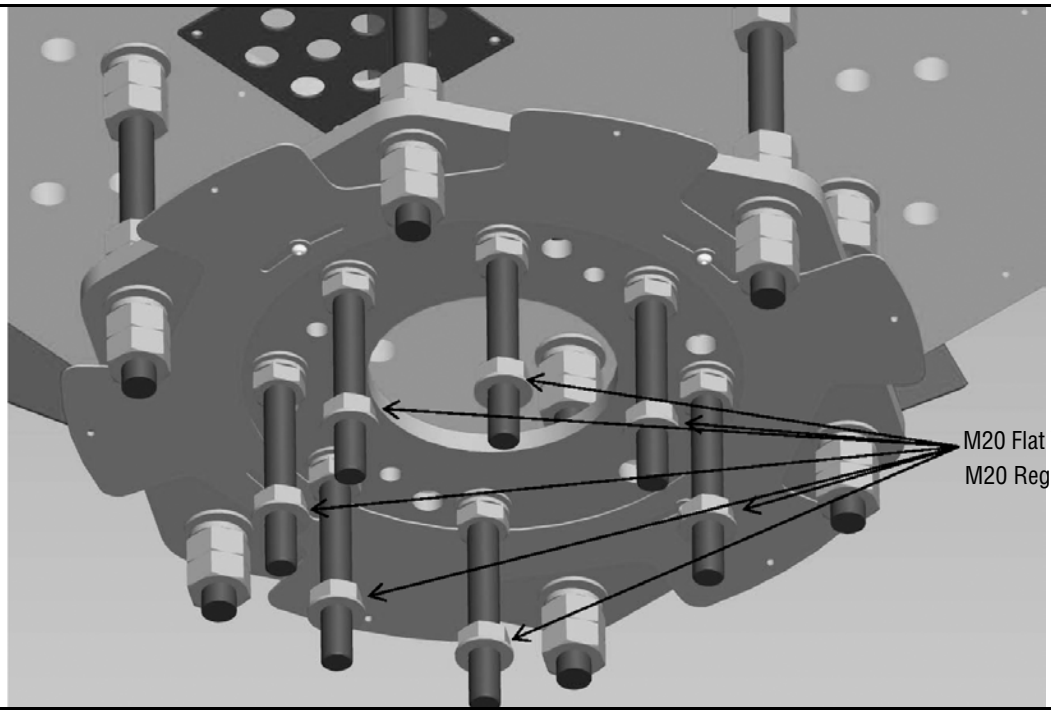
STEP
7



Step 7: Install M20 flat washers, M20 lock washers and M20 regular nuts.

NOTE: *For units with the round upper bearing mounting plate, 8 sets of M20 hardware are used to mount the bearing to the intermediate mounting plate. For bearings with a machined flat plate, seven sets of M20 hardware are used.*

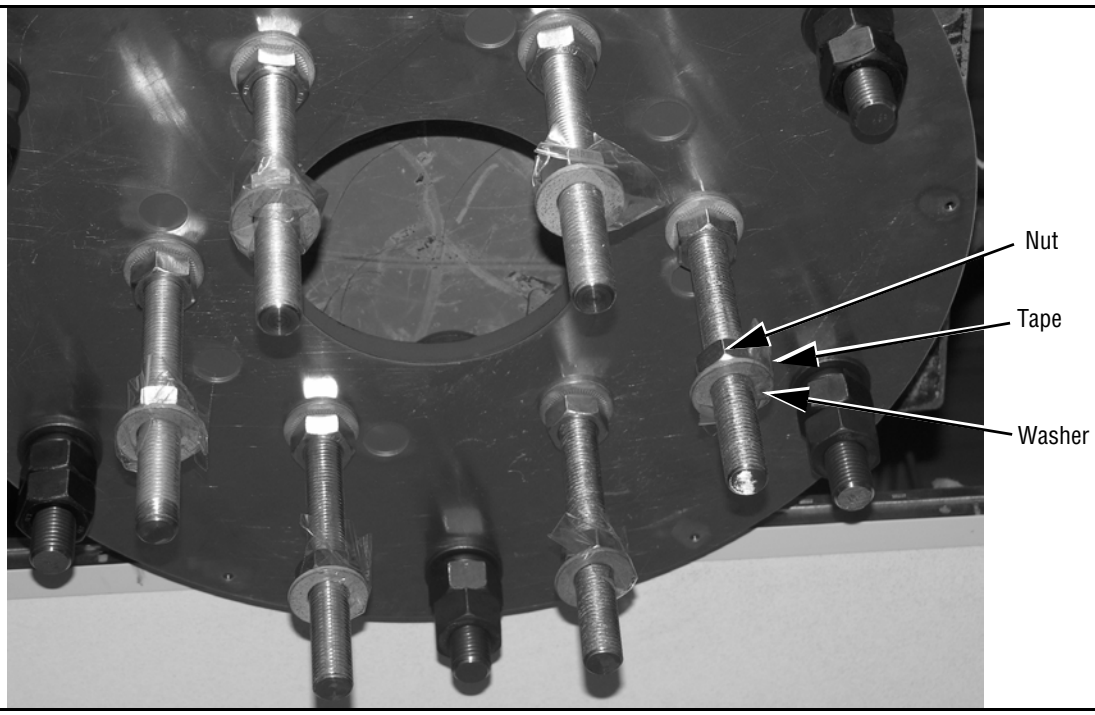
STEP 8



Step 8: Install M20 flat washers and M20 regular nuts onto threaded rods.

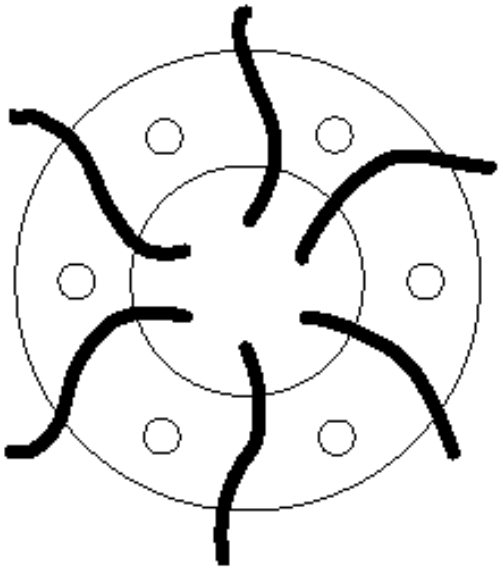
NOTE: *Refer to Equipment Drawings for dimensions.*

STEP 9



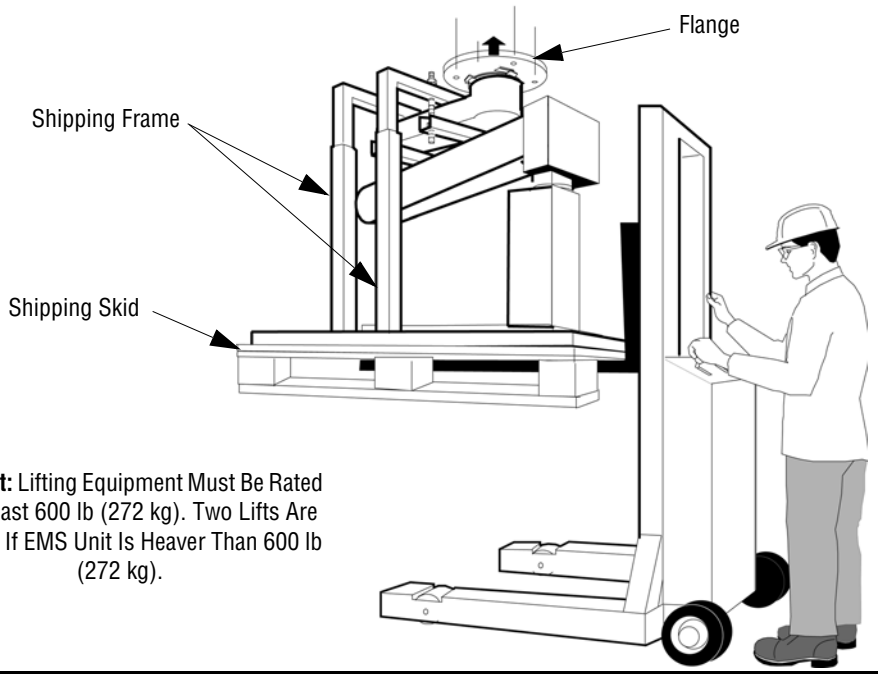
Step 9: Use tape to secure washers to nuts.

STEP
10



Step 10: On unit, arrange hoses and cables so they do not cross one another.

STEP
11

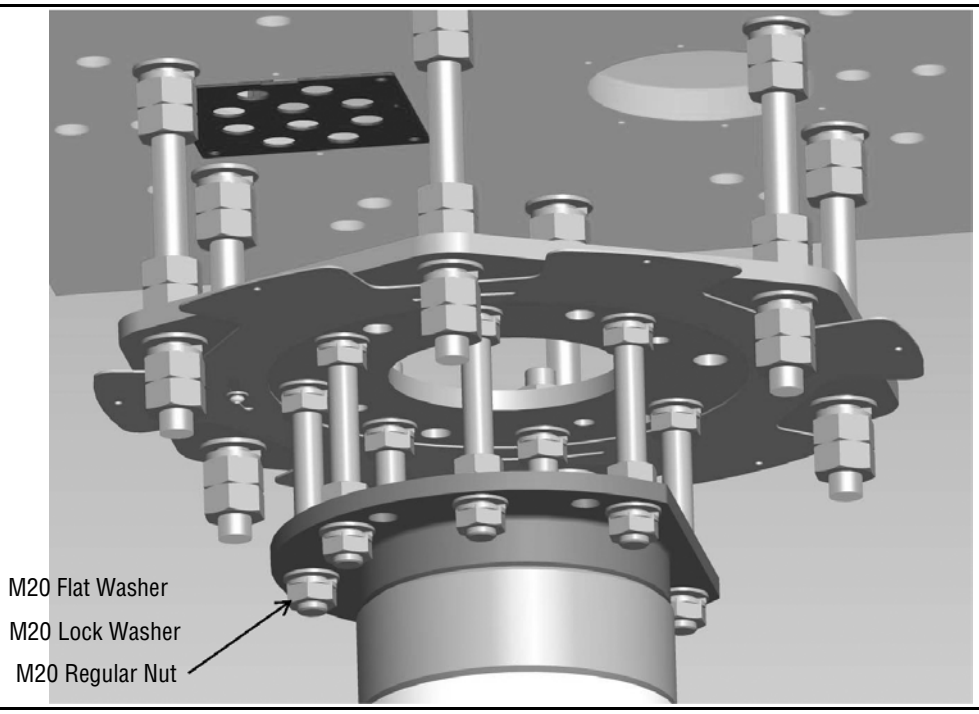


Important: Lifting Equipment Must Be Rated for at Least 600 lb (272 kg). Two Lifts Are Required If EMS Unit Is Heaver Than 600 lb (272 kg).

Step 11: Use lifting device to raise unit, including shipping frame and skid, to a height where all mounting bolts can be aligned with holes in unit upper mount. Position upper most arm toward center of room. When bolts align with upper mount, raise unit.

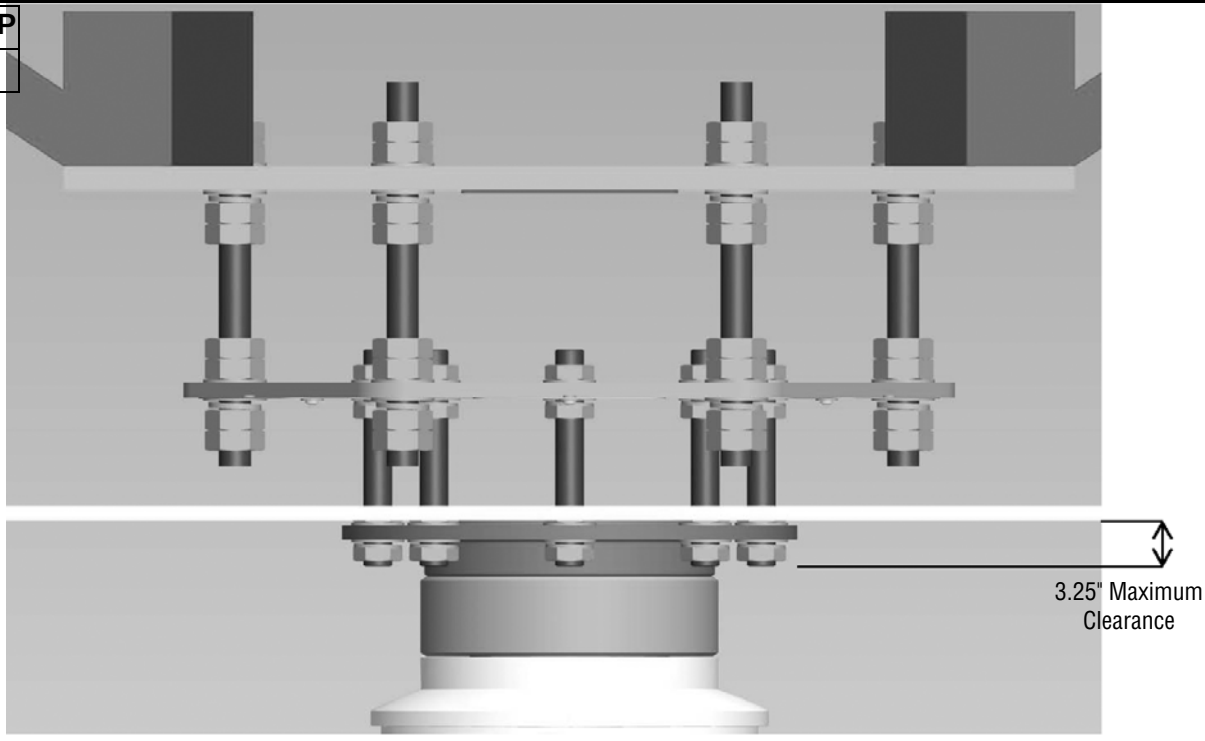
- Thread cables and hoses through center of ceiling plate.
- Raise unit fully.

STEP 12



Step 12: Install washers, lock washers and nuts onto mounting All Thread.

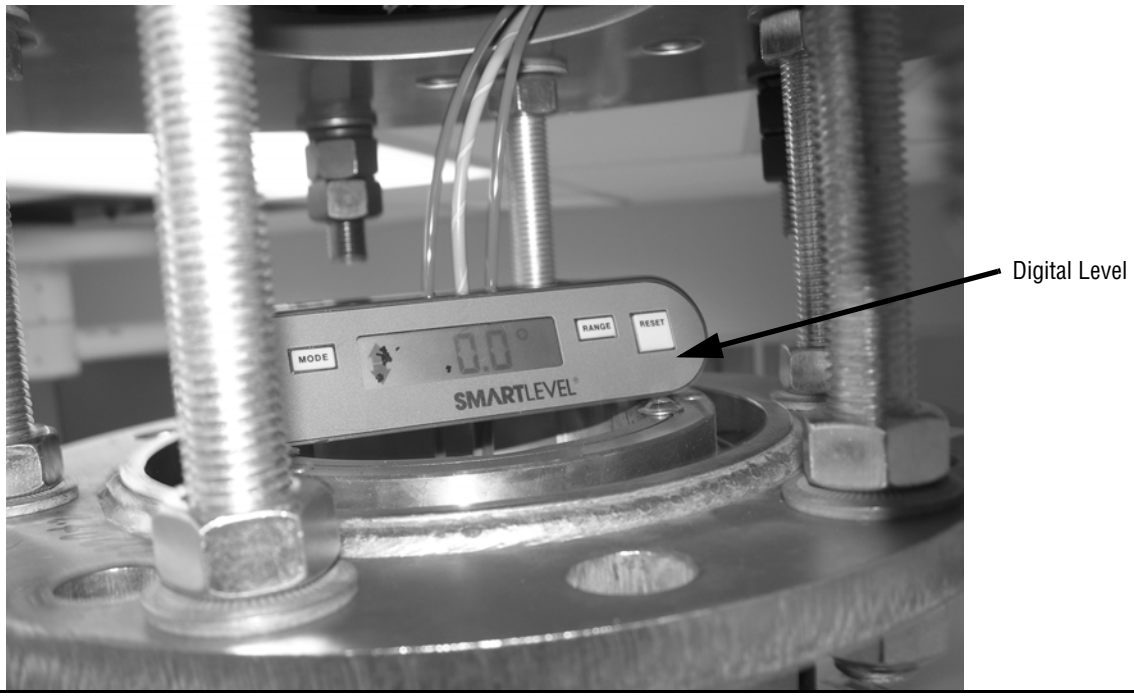
STEP 13



Step 13: Remove tape used to secure washers and nuts.

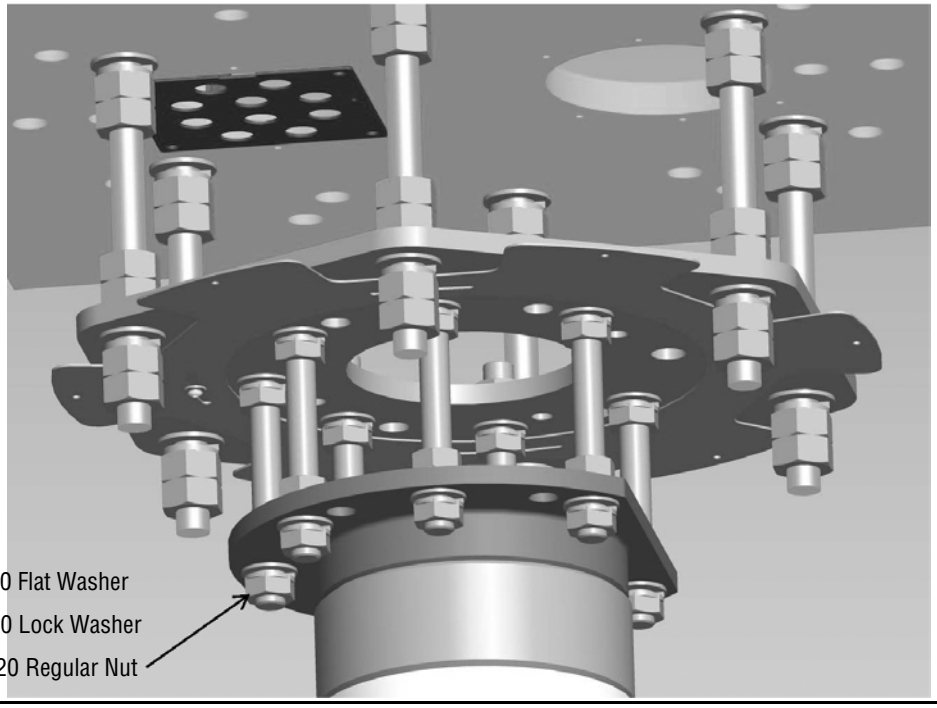
- Measure maximum clearance for canopy cover (to be installed in a later step).

STEP 14



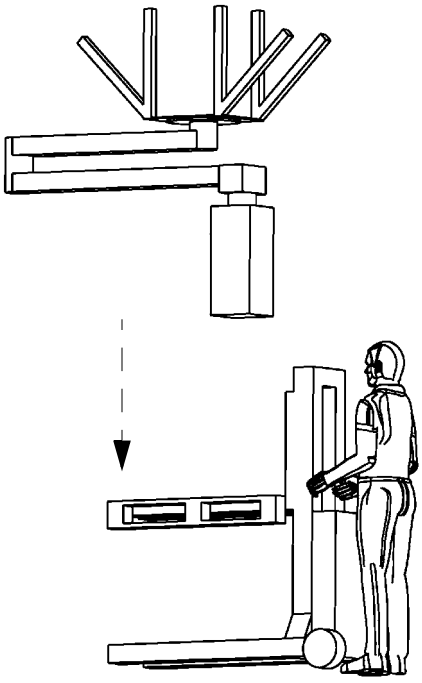
Step 14: Verify leveling.

STEP 15



Step 15: Torque all M20 hardware to 80 ft•lb (356 N•m).

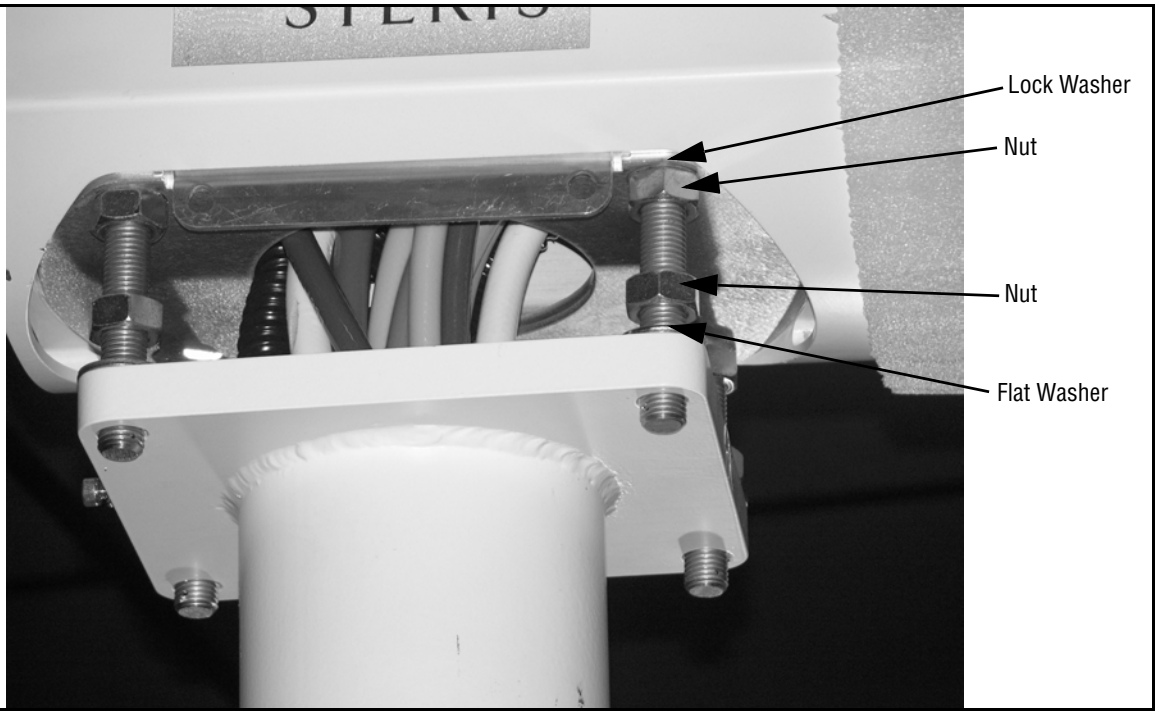
STEP 16



Step 16: Lower crate.

- Carefully swing/rotate column out from inside crate.

STEP 17

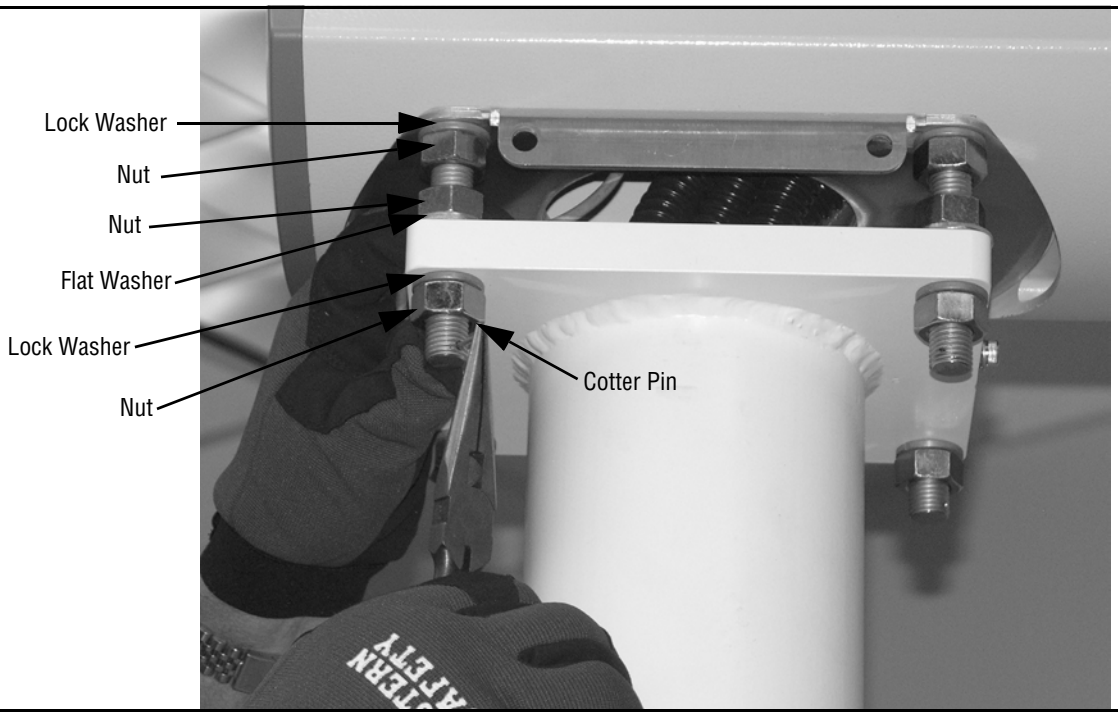


Step 17: Ensure lock washers, nuts and flat washers located between lower arm and column tube flange are installed.

STEP
18

Step 18: Use foam padding for protection and raise column with Genie Lift.

STEP
19

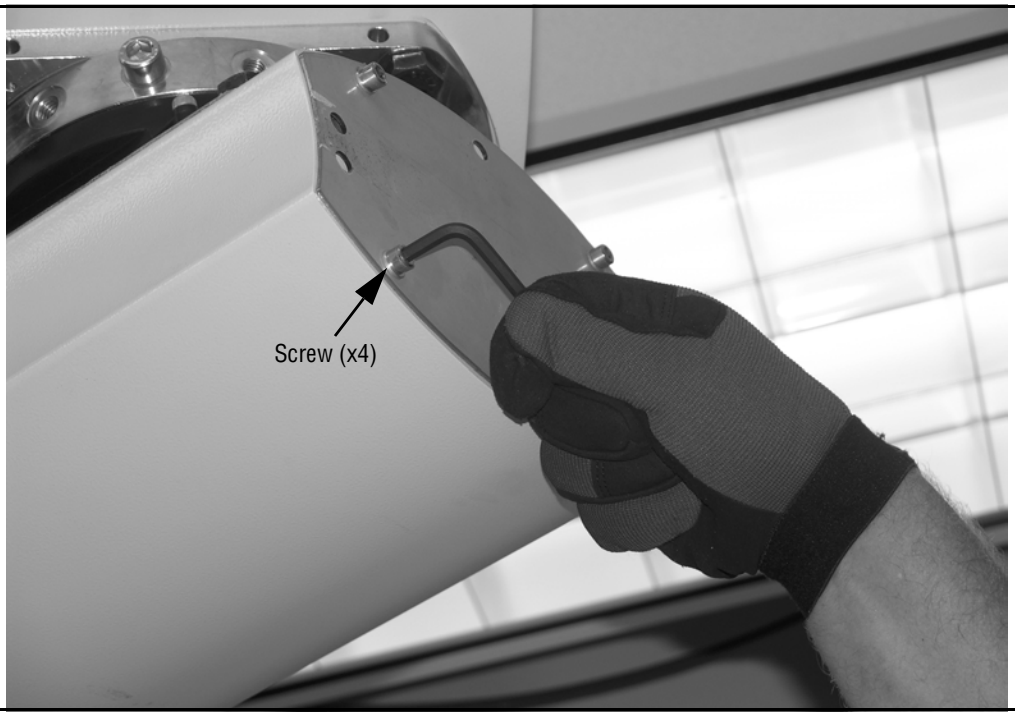


Step 19: Secure column with lock washers and nuts.

- Insert cotter pin into nut (x4) located on column mounting plate.
- Lower Genie Lift and move away from beneath column.

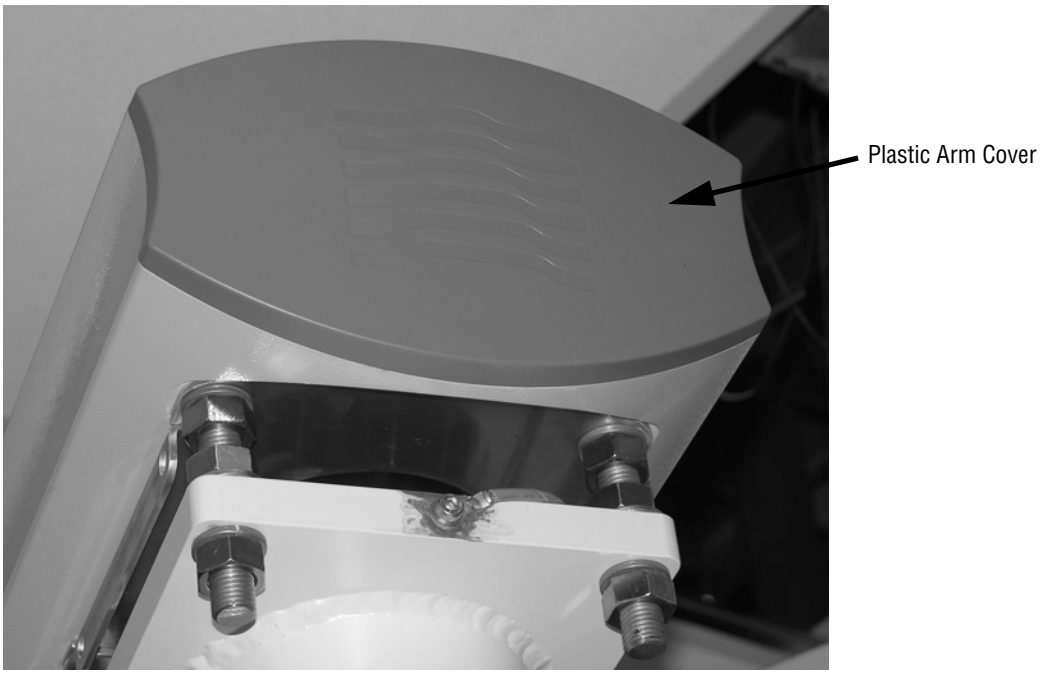
7.2 Install Covers

STEP
1



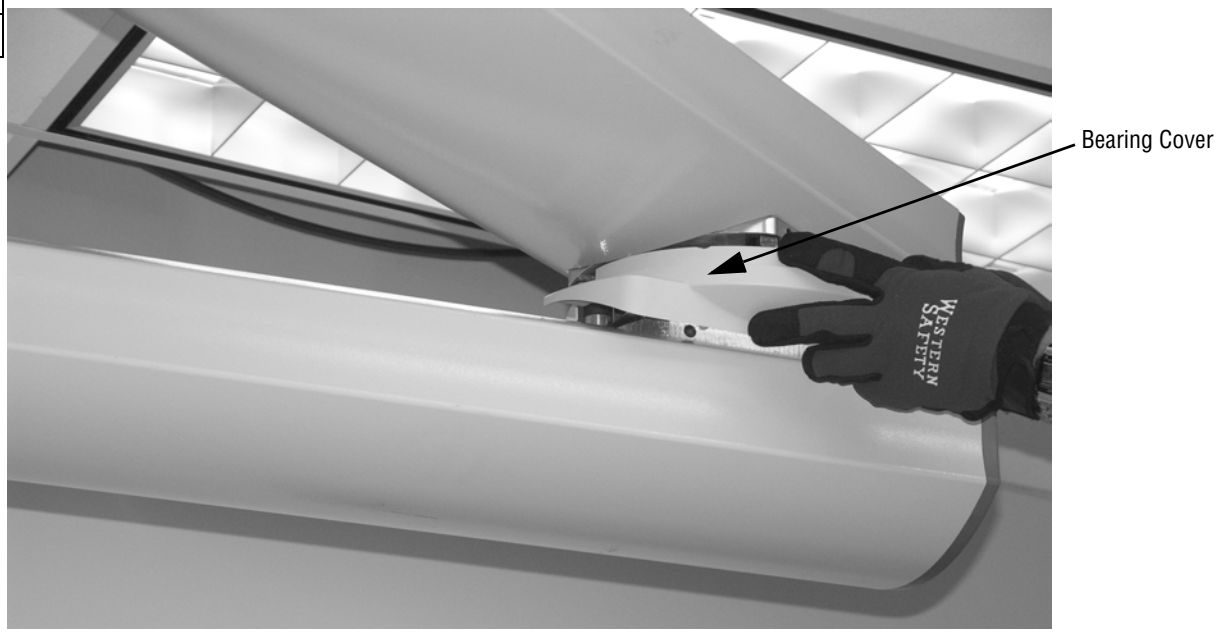
Step 1: Attach metal arm covers using lockwashers (x4) and screws (x4) provided by STERIS.

STEP 2



Step 2: Snap on plastic arm covers.

STEP 3



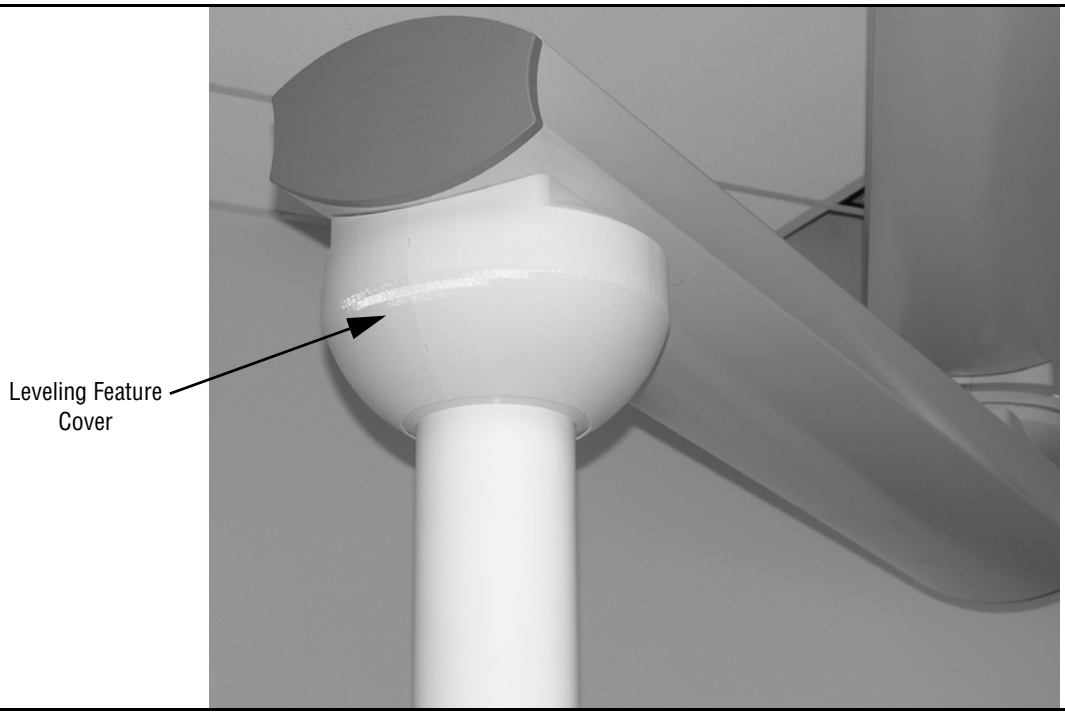
Step 3: Attach bearing covers.

- Place cover (male and female) on either side of bearing.
- Snap covers together.

STEP 4

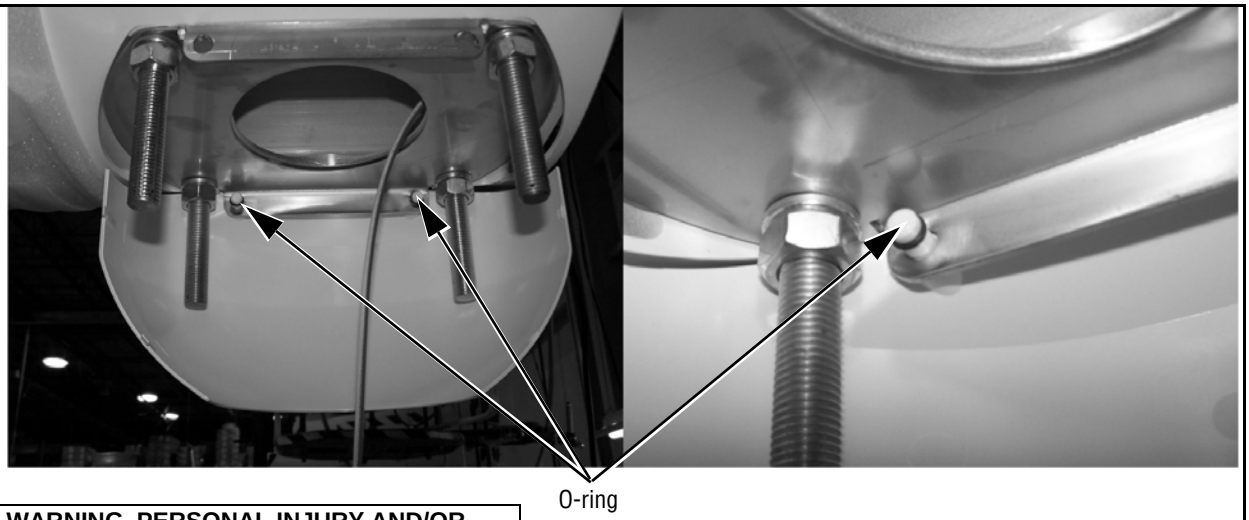
Step 4: Raise sliding plate on column until it reaches column mounting plate.

STEP 5



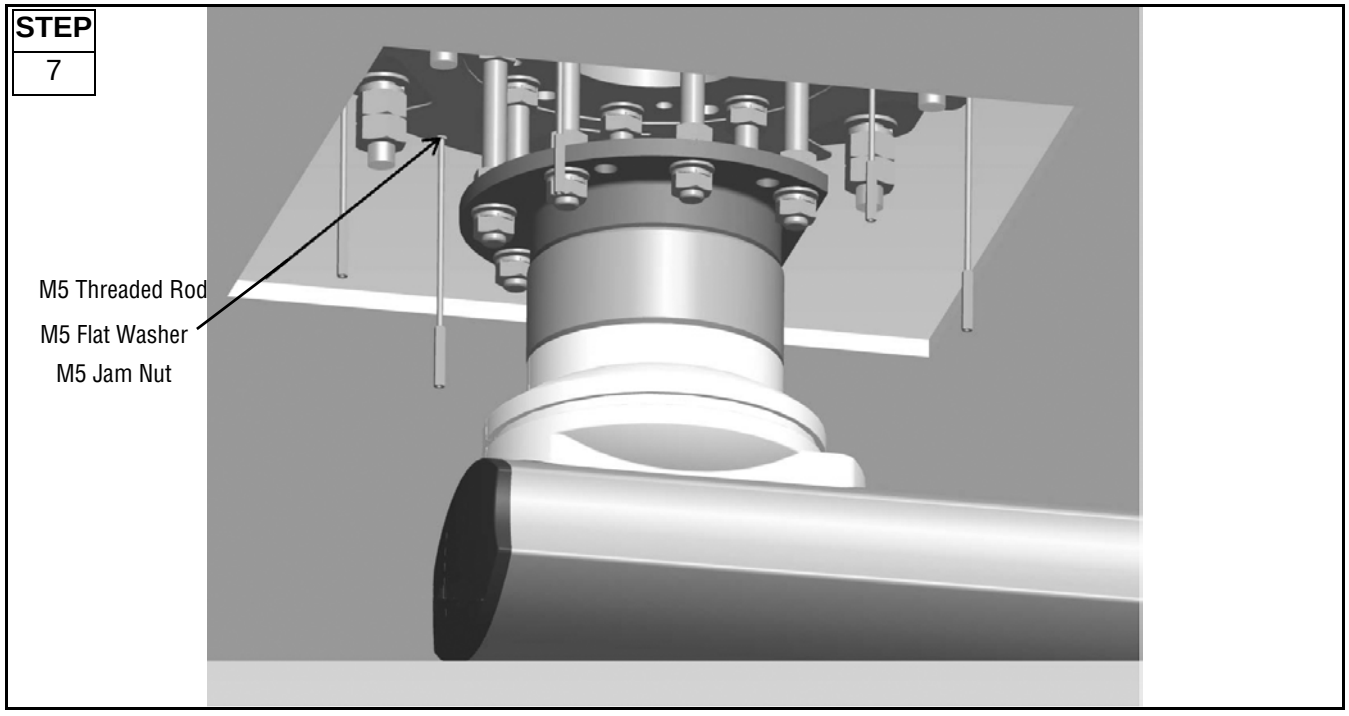
Step 5: Place cover on either side of leveling feature and snap together.

STEP 6



WARNING PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Install covers with O-rings. Covers installed without O-rings may fall.

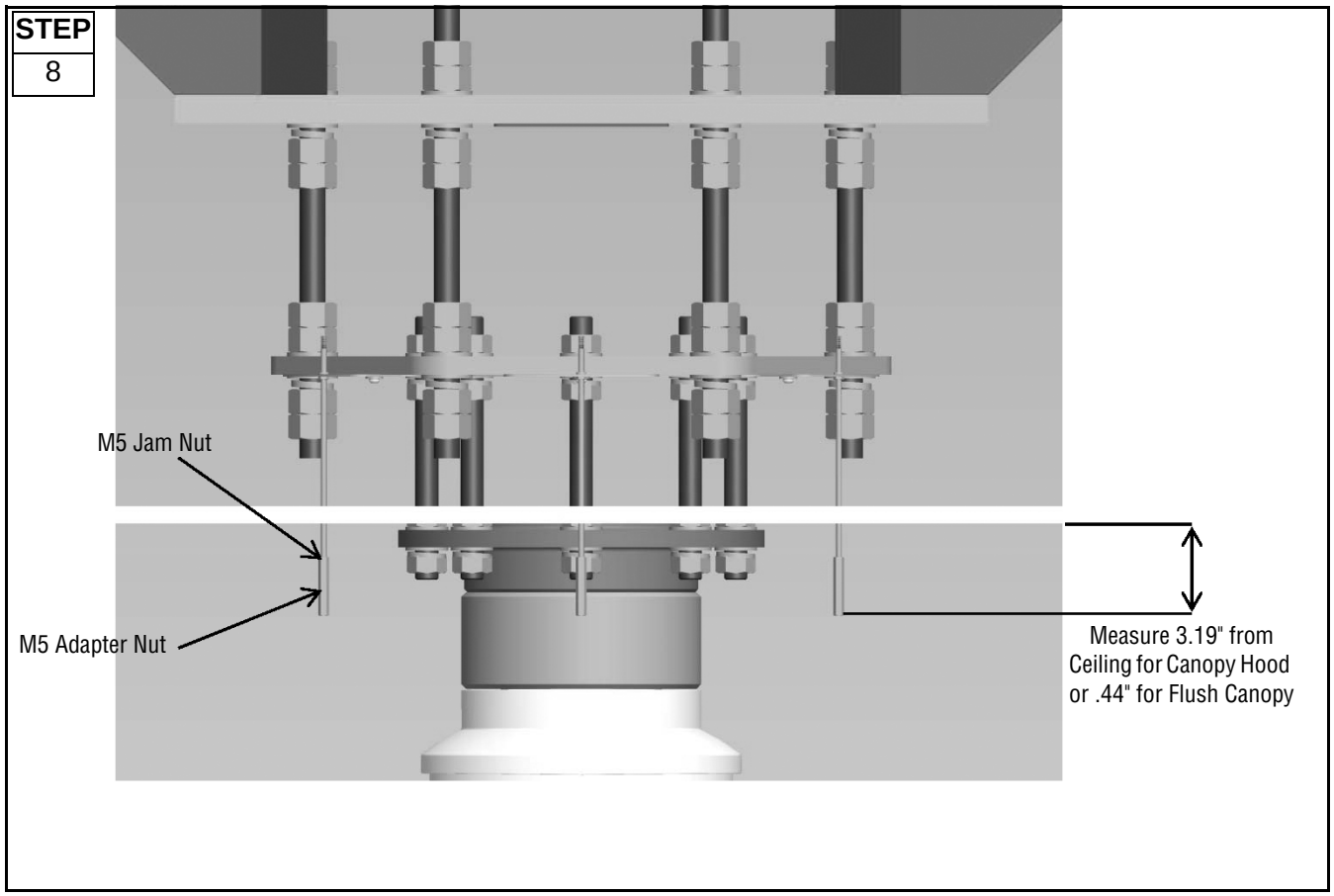
Step 6: Verify O-ring is properly installed and seated on guide pin before installation of leveling cover.



Step 7: Install six M5 threaded rods into canopy mounting plate for canopy cover mounting.

- Install M5 flat washer and jam nut at approximately 1-1/2" from upper end of threaded rod.

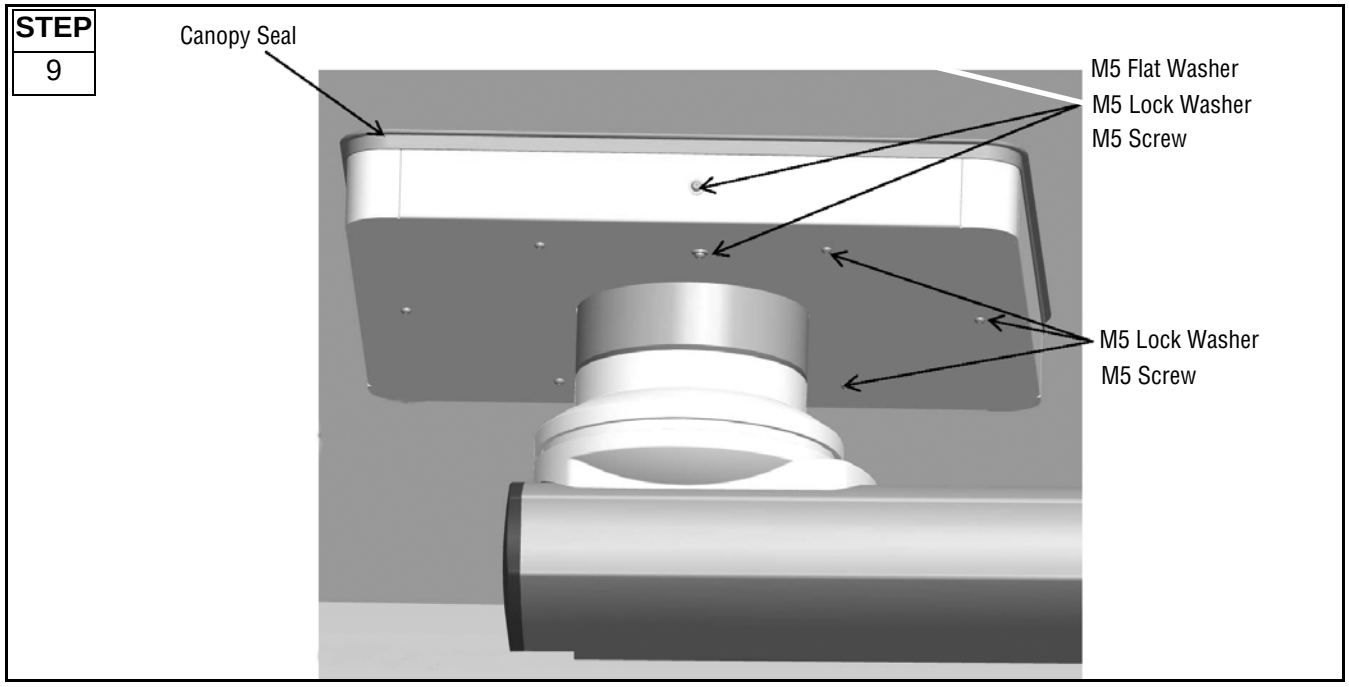
NOTE: *Only four M5 threaded rods for tandem configurations.*



Step 8: Install adapter nuts into threaded rods approximately 1/2 to 5/8".

- Lock adapter nut in place with M5 jam nut.
- For a canopy type hood, the distance the adapter hangs below ceiling should measure 3.19". If flush type canopy is used, adapter should hang 0.44" below ceiling.
- Once clearance is verified, use upper M5 jam nut to lock threaded rods in position.

NOTE: *Refer to Equipment Drawings for specific configuration.*

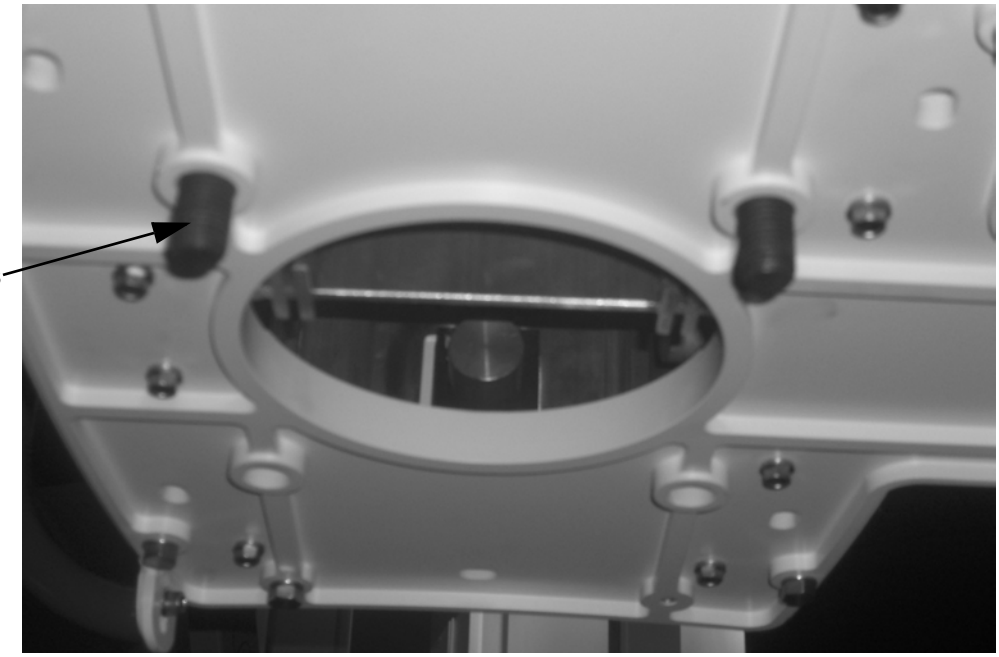


Step 9: Place two halves of canopy hood around bearing and connect them with four sets of M5 hardware (screw, flat washer, lock washer).

- Thread canopy seal onto upper surface of canopy wall.
- Raise canopy hood and insert M5 lockwashers and M5 screws through hood into adapter nuts on M5 threaded rods installed previously.
- Tighten screws.

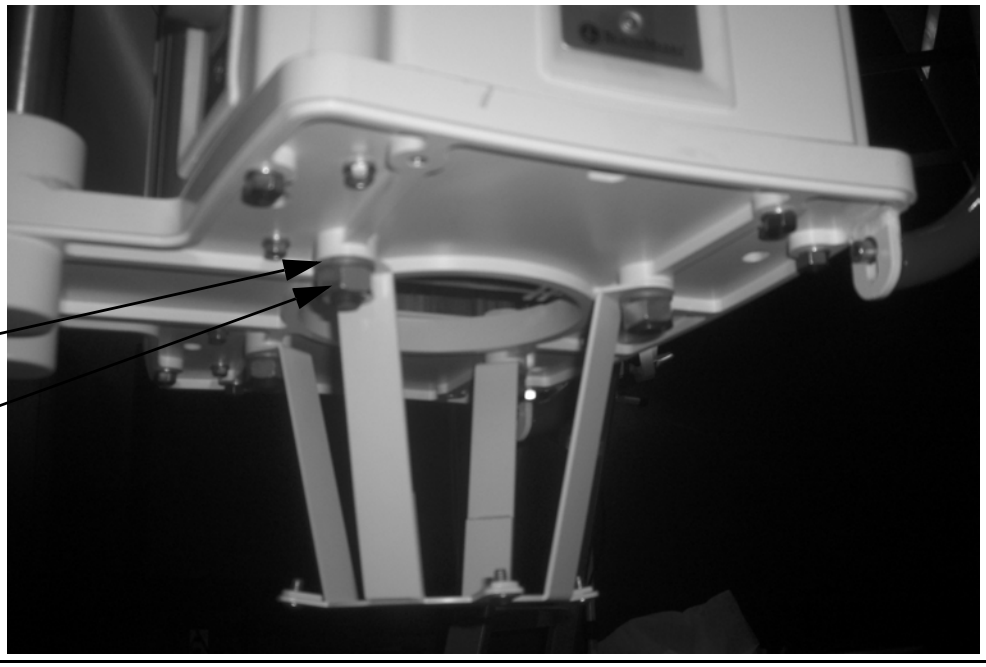
7.3 Install Bottom Column Cover

STEP 1



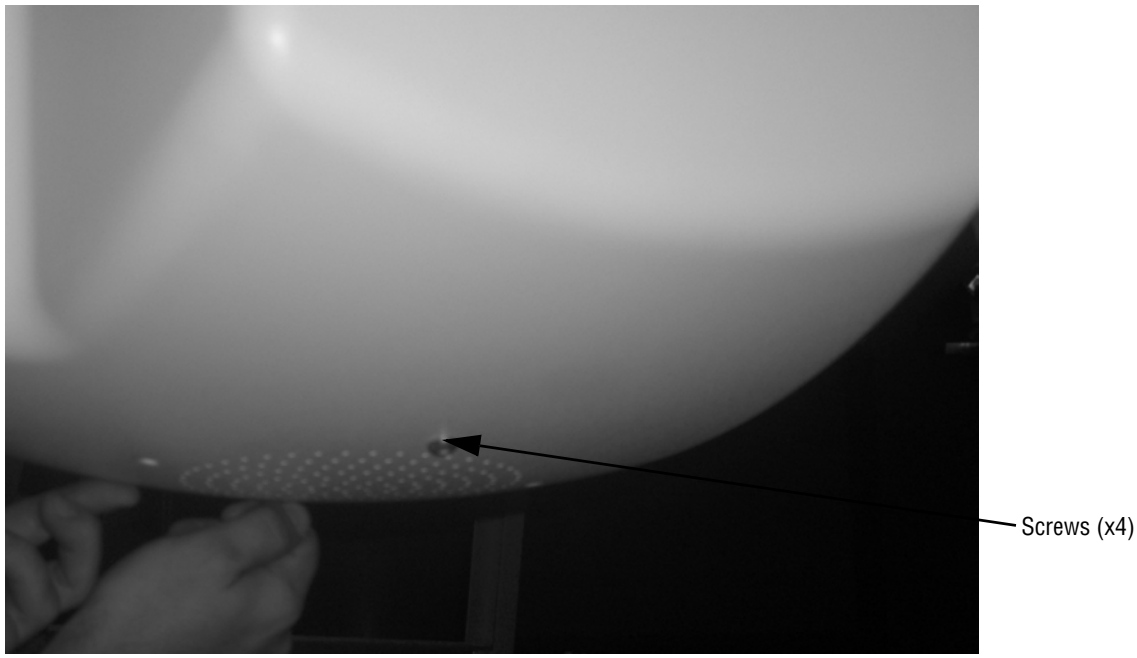
Step 1: Insert two flat rods with threaded rods into column such that threaded rods drop out of column.

STEP 2



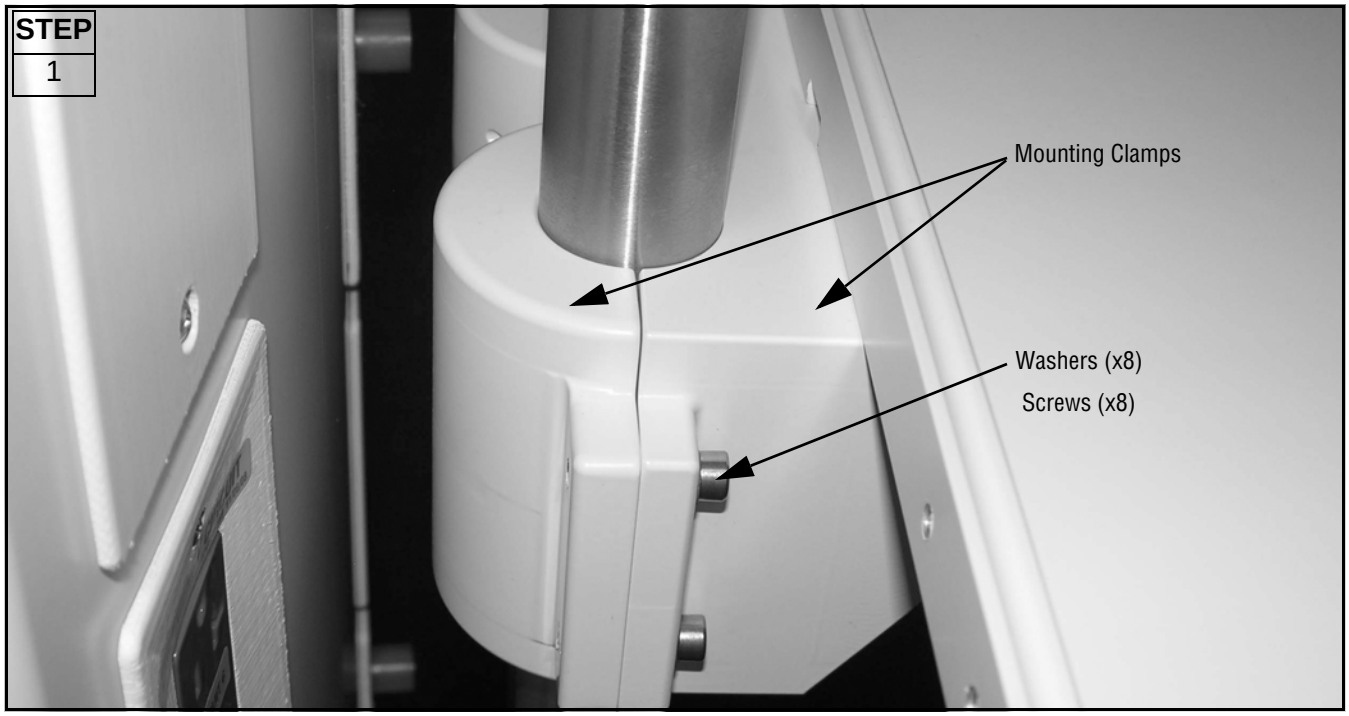
Step 2: Attach bracket with washers and nuts.

STEP
3



Step 3: Place cover onto bottom and secure with four screws.

7.4 Install Shelves



WARNING – PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Two people are required to install the shelf.

Step 1: Lift shelf to desired height. Use lifting device if necessary.

- Position mounting clamps on opposite side of rails.
- Secure mounting clamps with washers (x8) and screws (x8).

Table 7-1. Column Capacity

45" (1143 mm), 35" (889 mm) and 25" (635 mm) Length Column Weight Capacity without Accessories	
Number of Shelves	**Average Weight Load Per Shelf**
5	38 lb (17 kg)
4	56 lb (25 kg)
3	85 lb (39 kg)
Do not exceed maximum shelf load of 85 lb (39 kg).	
The maximum loading for column is the average of the loaded weight per shelf times number of shelves. Do not exceed maximum weight of 85 lb (39 kg) on a single shelf. Maximum column load is 350 lb (159 kg) which includes 32 lb (14.5 kg) for each shelf plus weight of equipment.	

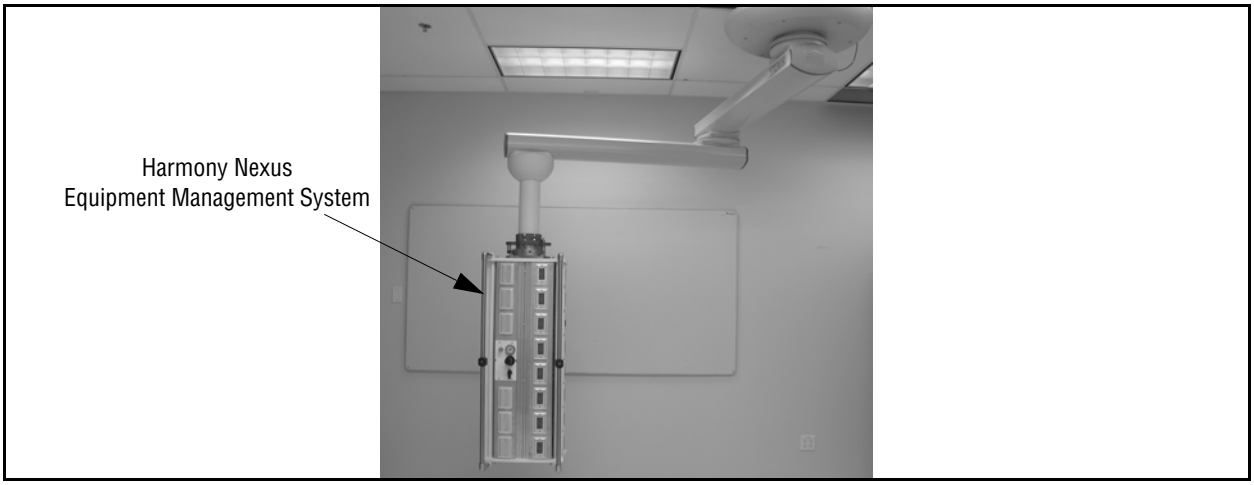
STEP
2

Step 2: Installation complete.

LEVELING COLUMN

8

8.1 Leveling Checklist



Personnel Required: (Two)

Personal Protective Equipment Required:

- Safety Goggles or Glasses
- Gloves
- Steel-Toe Shoes
- Hard Hat

Parts Required:

- Shelf/Shelves

Special Tools:

- Genie® Lift™[1]
- Ladder (8’ [2 m])
- Spirit Level or Digital Level (P764335-021, Digital Level)
- Weight Scale
- 24 mm wrench

1. Genie® Lift™ is a registered trademark of Genie Industries, a Terex Company.

8.2 Leveling Column

STEP
1

Step 1: Place digital level on column.

- Adjust nuts until column is level.

9.1 Adjust Swivel Range on Main Arm, Intermediate Arm and Column/Supply Head

The swivel range can be adjusted in 30° increments up to a maximum range of 330°. The maximum is to be set at time of installation so that the main arm does not collide with a wall. See Figure 9-1.

Adjustments for the main and intermediate bearings are accomplished in the same manner as follows:

***NOTE:** There are 12 threaded positions that can be seen. At two of the positions, there are larger screws which act as stop screws. Remaining threaded positions contain setscrews on units with friction brakes.*

a. Rotate the unit. Two large stop screws contact fixed stop. If stop position requires adjustment, remove a stop screw and relocate it into another threaded position.

b. If unit has friction brakes and adjustment is necessary, do not reinstall brake segments, skip to *SECTION 9.2, ADJUST FRICTION BRAKES – ARMS, PAGE 9-3*.

c. Reinstall bearing covers by snapping the two cover sections together.

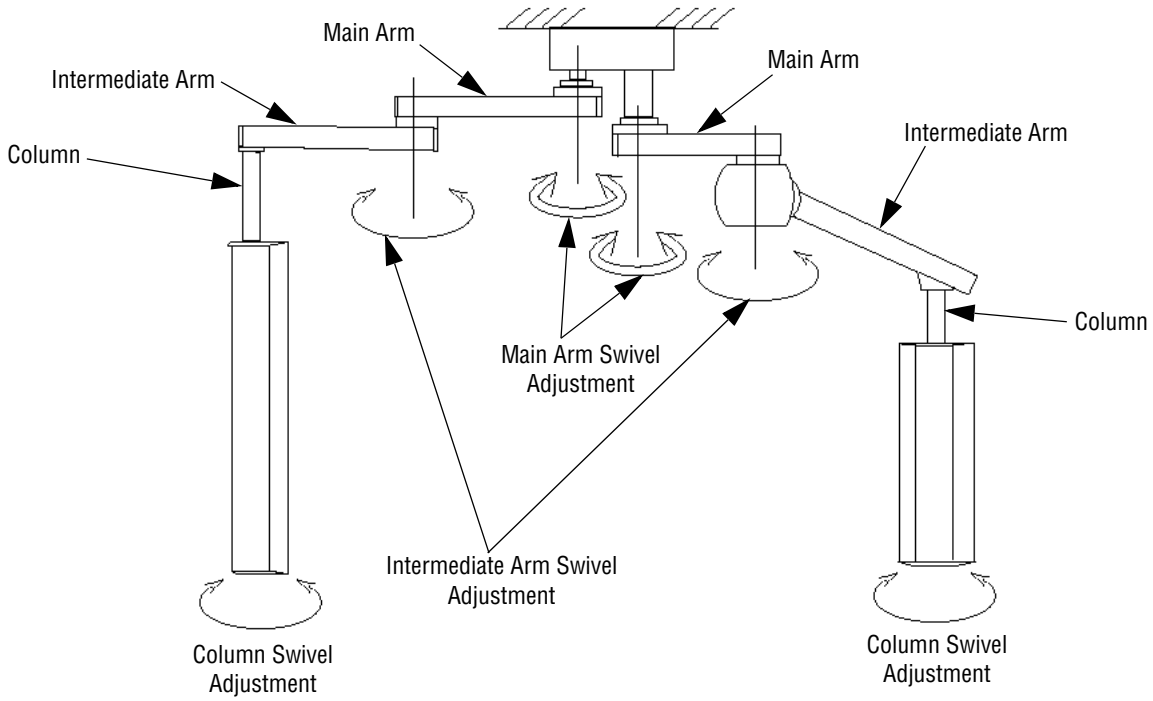


Figure 9-1. Swivel Adjustments

NOTE: *Rotation stops can be adjusted at each swivel joint to allow a range rotation between 5° and 330° in 25° increment.*

1. To set swiveling range on column or head, loosen two screws in ring above top column cover and lift up to allow access to bearing. To set swiveling range on either arm bearing, remove bearing covers to access bearing.

   NOTE: *Perimeter of bearing has 14 M12 threaded holes. A M12 socket head cap setscrew with lockwasher is screwed into one of the holes as a stop.*

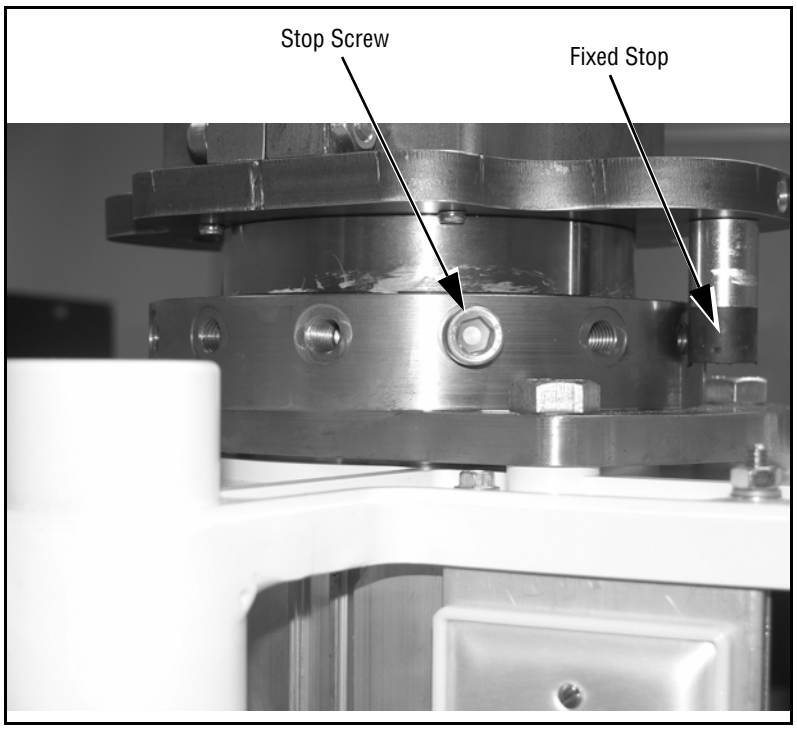


Figure 9-2. Swivel Adjustments

2. Position stop screw to desired location.
3. To limit swiveling range further, insert an additional screw accordingly or relocate existing second stop screw (supplied with product) to the desired location.
4. Afterward, reinstall all bearing covers.

9.2 Adjust Friction Brakes – Arms

See Figure 9-3 and Figure 9-4.

Important: *The friction brake(s) are intentionally loose when the EMS is shipped in order to allow the installer to adjust the desired braking effect. The friction brake(s) should be adjusted at time of installation.*

NOTE: *The two outer screws must be tight to secure the brake plate.*

a. At rotational joint, remove arm end caps and Allen screws securing aluminum plate.

b. Tighten or loosen screw(s) located toward center of friction brake plate to achieve desired braking effect.

- To apply more brake pressure, tighten friction brake screw(s).
- To apply less brake pressure, loosen friction brake screw(s).

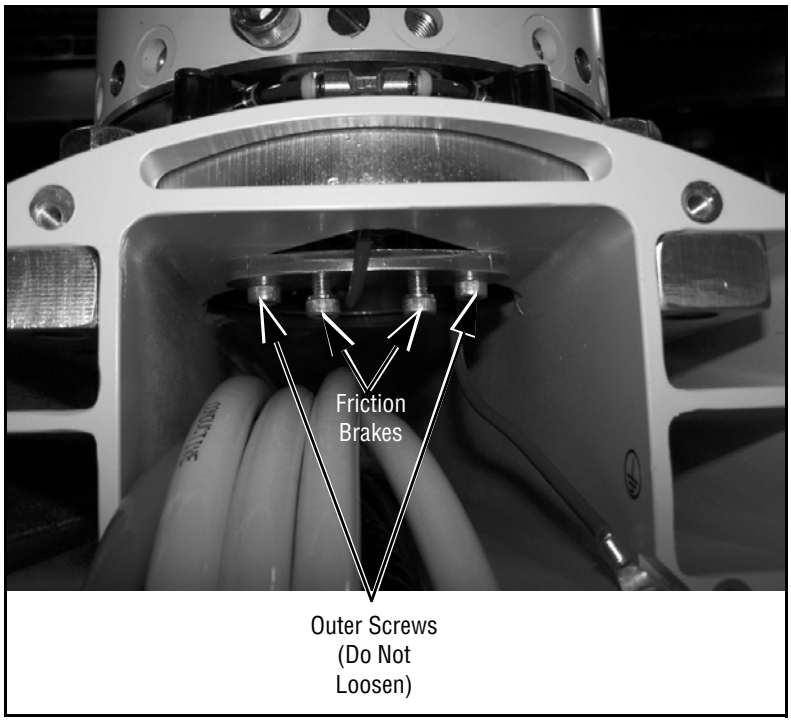


Figure 9-3. Tighten/Loosen Screws (Bearing Position #1)

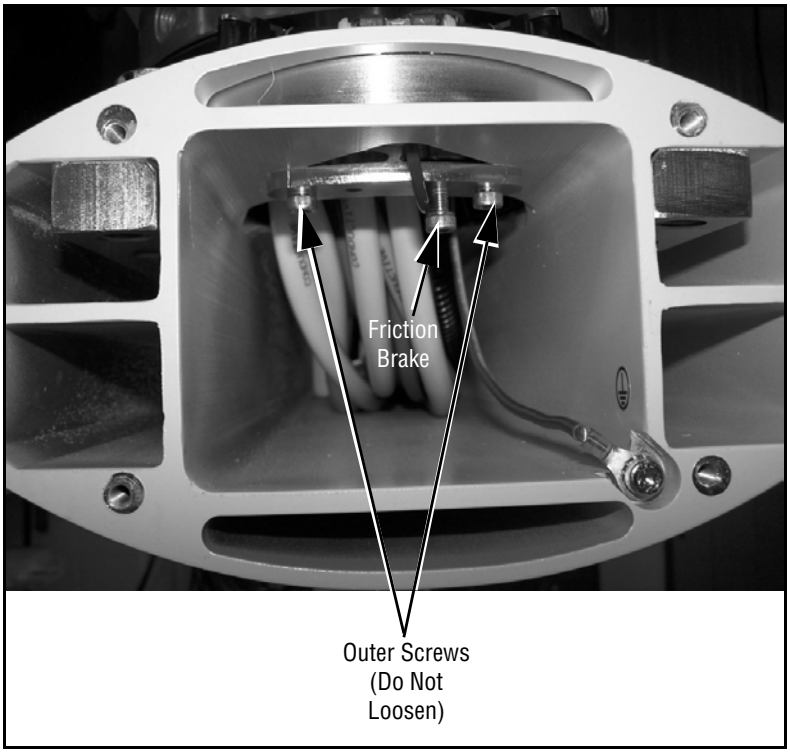


Figure 9-4. Tighten/Loosen Screw (Bearing Position #2)

NOTE: *Very little adjustment is needed to change braking effect.*

NOTE: *Hubs closest to support head column should have less braking than those near ceiling attachment. See* Figure 9-5*.*

Important: Do not overtighten brakes. When making friction brake adjustments, ensure that all brakes exert equal friction around perimeter of bearing, otherwise arm movement may be impaired or brakes may suffer eventual damage.

c. Reinstall aluminum plate and arm end cap.

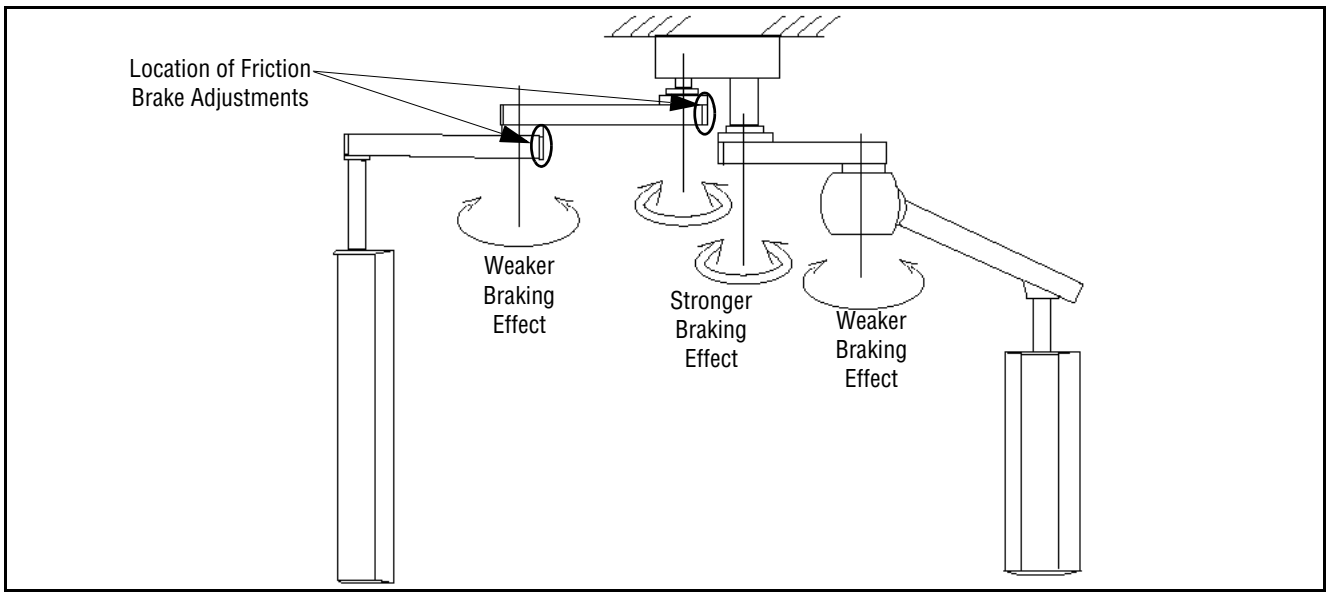


Figure 9-5. Braking Effects

9.3 Adjust Friction Brake – Column

See Figure 9-6.

a. Loosen two screws in ring above top column cover and lift up to access brake.

b. Tighten or loosen screw located toward center of friction brake plate to achieve desired braking effect.

- To apply more brake pressure, tighten friction brake screw.
- To apply less brake pressure, loosen friction brake screw.

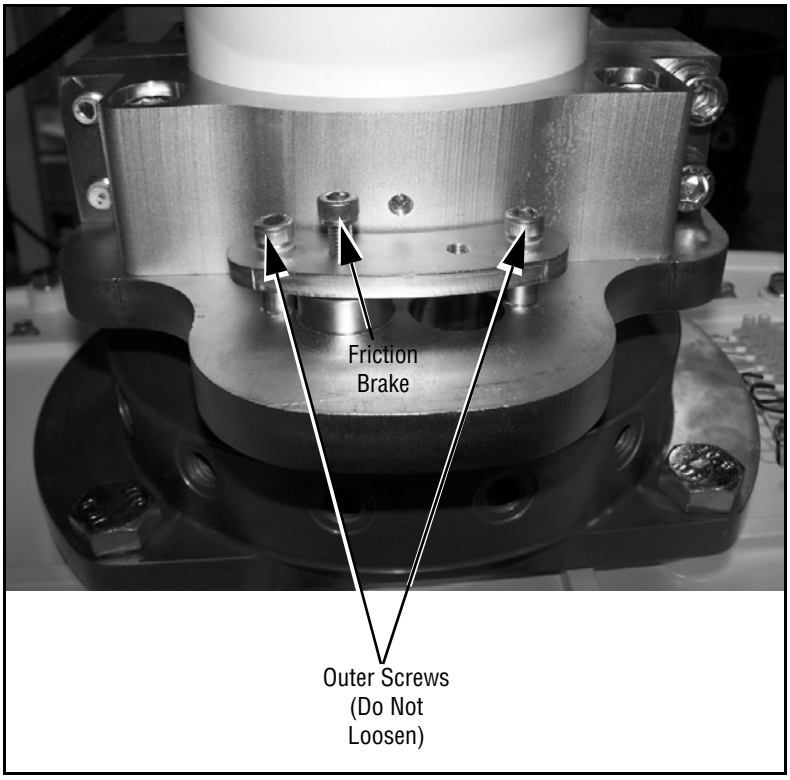


Figure 9-6. Tighten/Loosen Screw (Bearing Position #3)

UTILITY CONNECTIONS

10

10.1 Final Connections

1. Gas Hoses
2. High Voltage Wires
3. Low Voltage Wires
4. Air Supply Line for Brakes

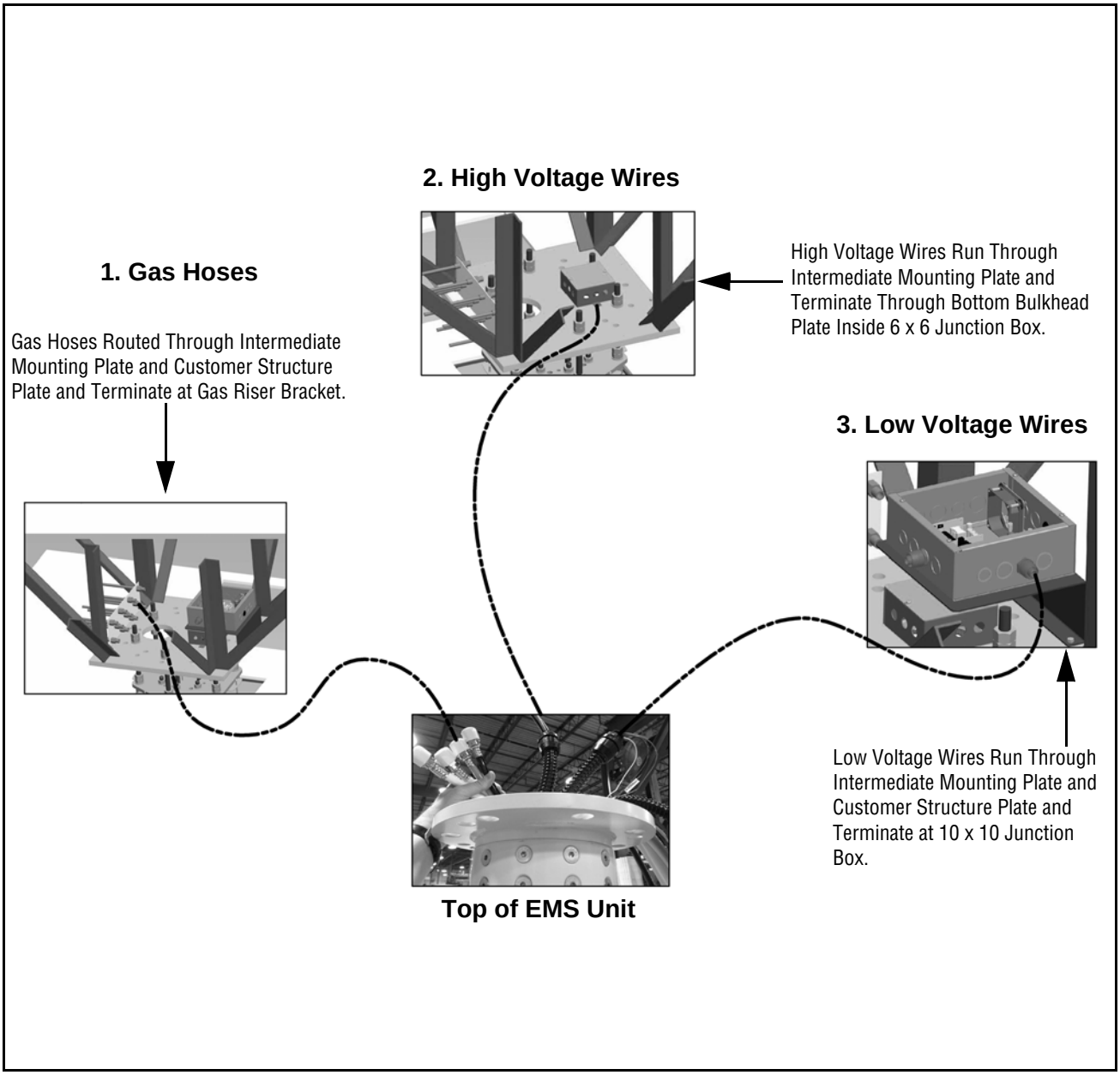

2. High Voltage Wires
1. Gas Hoses
High Voltage Wires Run Through Intermediate Mounting Plate and Terminate Through Bottom Bulkhead Plate Inside 6 x 6 Junction Box.
Gas Hoses Routed Through Intermediate Mounting Plate and Customer Structure Plate and Terminate at Gas Riser Bracket.
3. Low Voltage Wires
Low Voltage Wires Run Through Intermediate Mounting Plate and Customer Structure Plate and Terminate at 10 x 10 Junction Box.
Top of EMS Unit

Figure 10-1. Overview of Utility Connections

10.2 Connection of Gas Services

⚠ WARNING–PERSONAL INJURY HAZARD: Ensure ceiling gas supply lines are depressurized before removing protective caps.

See Figure 10-1 and Figure 10-2.

1. Locate gas lines with Diameter Index Safety System (D.I.S.S.) connectors protruding from the bearing plate of the Harmony Nexus Equipment Management System.
2. Match gas type coding connectors of Harmony Nexus EMS with those projecting downward from ceiling plate.
3. Connect gas lines:
   a. Remove plastic bag and protective caps from ceiling supply lines on connectors of Harmony Nexus EMS.

***NOTE:** DISS connectors are size indexed to prevent interconnection of incorrect gas lines. If connectors do not mate easily, do not force. Check gas type coding, stamped on side of fitting, before proceeding.*

   b. Connect gas lines of Harmony Nexus EMS to ceiling supply lines. Tighten fittings securely and test for leaks.

Normal Settings

- Nitrogen – Supply gauge 160 psi ± 2% accuracy
- Instrument air: 125 psi ± 2% accuracy

Gauge Information

- Range: 1-300 psi
- Accuracy: 0-100 ± 3%
  100-200 ± 2%
  200-300 ± 3%

4. Once all gas lines have been connected, set gas supply lines away from any moving parts on or around the bearing plate and junction boxes.

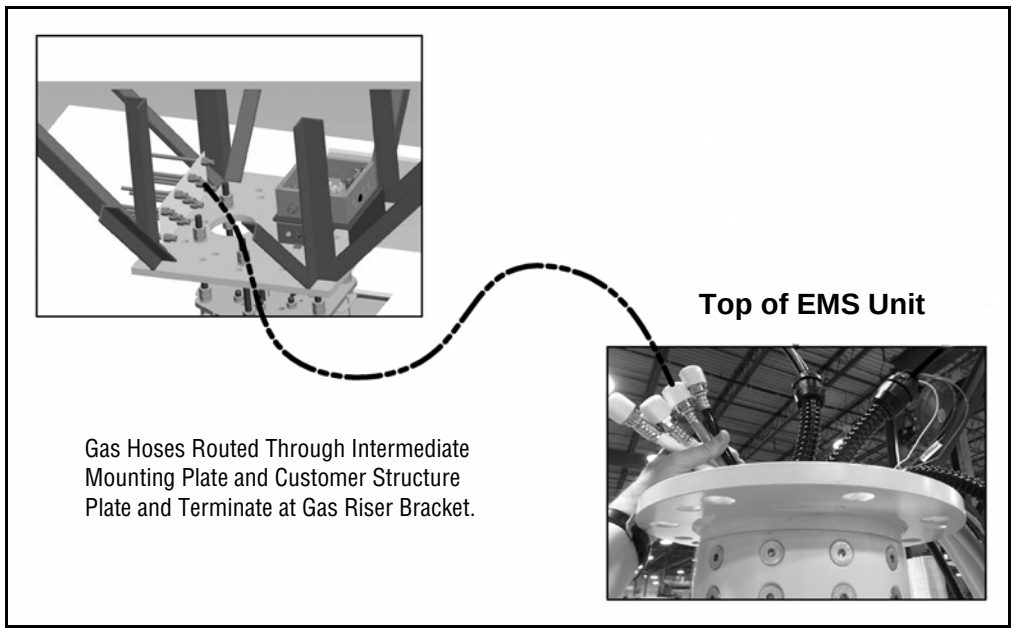

Top of EMS Unit
Gas Hoses Routed Through Intermediate Mounting Plate and Customer Structure Plate and Terminate at Gas Riser Bracket.

Figure 10-2. Gas Hoses

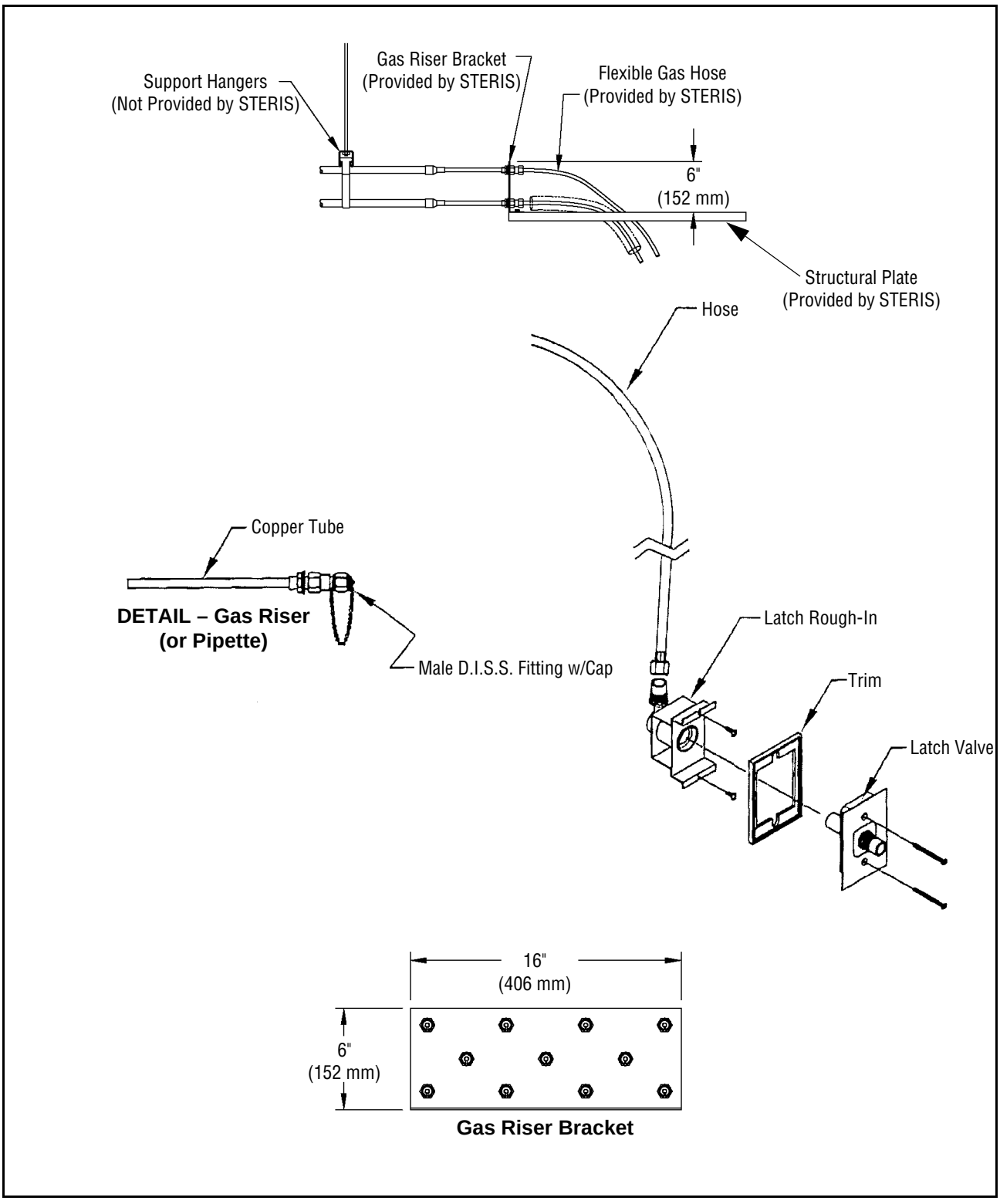


Figure 10-3. Gas Riser (Detail View)

10.3 Final Connection of High Voltage Electrical Services

See Figure 10-1 and Figure 10-4.

***NOTE:** Qualification:*

- Electrical connection of the EMS system may only be performed by a qualified electrician.
- Verify OR room is equipped with an isolation transformer.
- Please observe all applicable safety precautions (review *SECTION 1, SAFETY PRECAUTIONS*.
- Prewired circuits are contained in flexible conduits.
- The number of circuits and how they are divided is dependent upon each individual user's requirements.
- The circuits and conductors are identified, specified and listed on the equipment data plate.

***NOTE:** Construction Detail: When wire stripping is required, the strip length should be 8mm (5/16"). Stray wire strands are not permitted to be outside the crimp nuts. See* Figure 10-11*.*

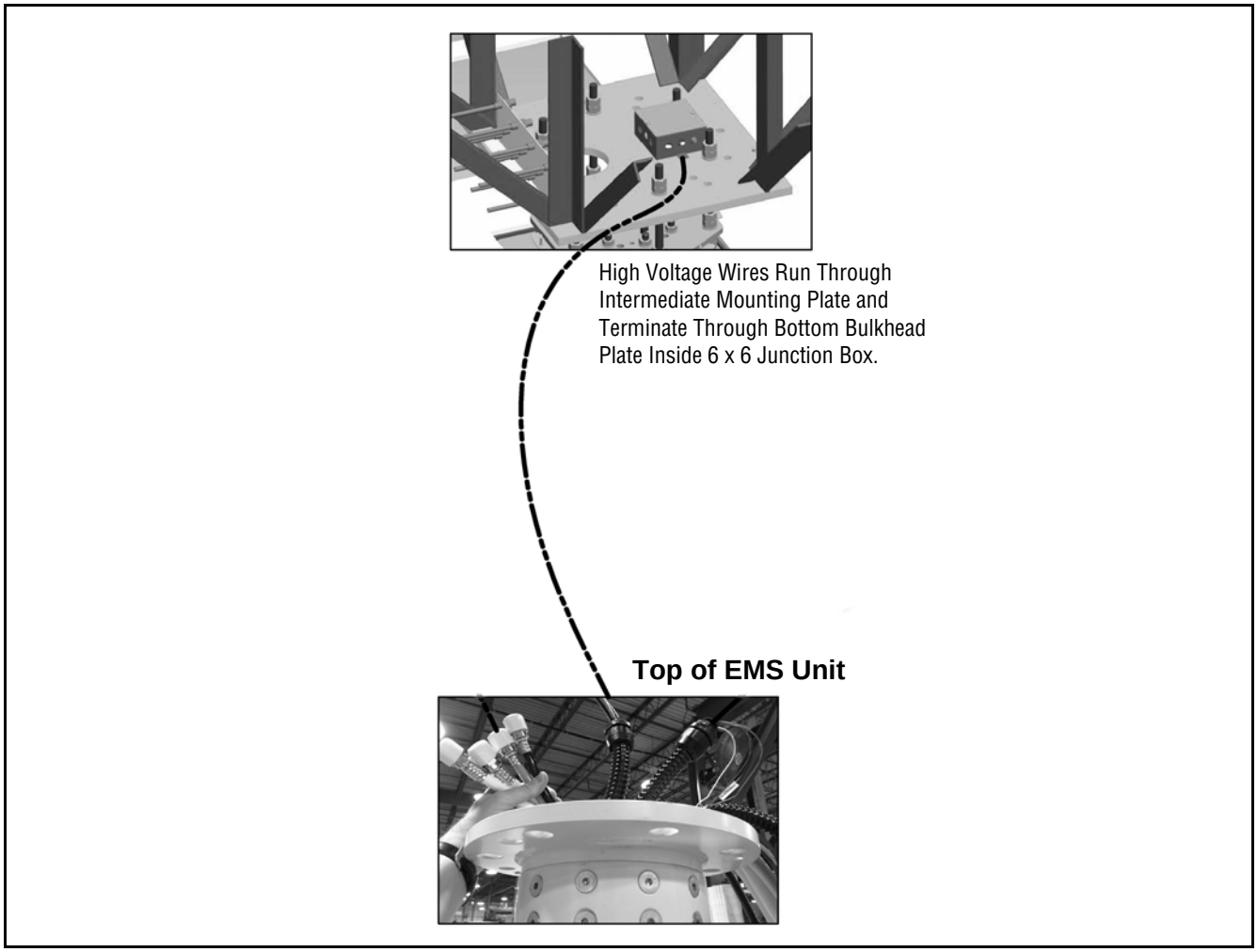

High Voltage Wires Run Through
Intermediate Mounting Plate and
Terminate Through Bottom Bulkhead
Plate Inside 6 x 6 Junction Box.
Top of EMS Unit

Figure 10-4. High Voltage Wires

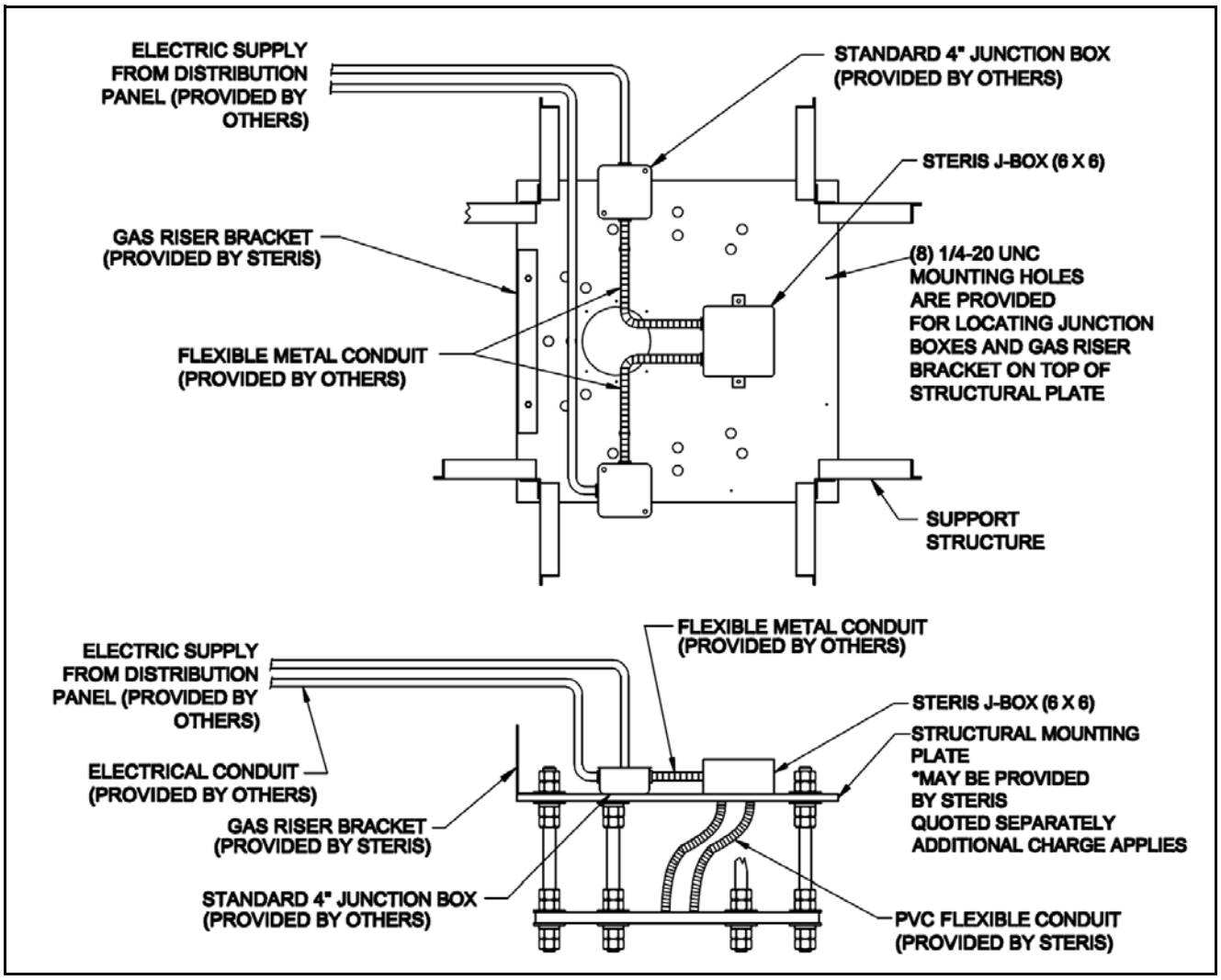

ELECTRIC SUPPLY FROM DISTRIBUTION PANEL (PROVIDED BY OTHERS)
STANDARD 4" JUNCTION BOX (PROVIDED BY OTHERS)
STERIS J-BOX (6 X 6)
GAS RISER BRACKET (PROVIDED BY STERIS)
(8) 1/4-20 UNC MOUNTING HOLES ARE PROVIDED FOR LOCATING JUNCTION BOXES AND GAS RISER BRACKET ON TOP OF STRUCTURAL PLATE
FLEXIBLE METAL CONDUIT (PROVIDED BY OTHERS)
SUPPORT STRUCTURE
FLEXIBLE METAL CONDUIT (PROVIDED BY OTHERS)
ELECTRIC SUPPLY FROM DISTRIBUTION PANEL (PROVIDED BY OTHERS)
STERIS J-BOX (6 X 6)
STRUCTURAL MOUNTING PLATE *MAY BE PROVIDED BY STERIS QUOTED SEPARATELY ADDITIONAL CHARGE APPLIES
ELECTRICAL CONDUIT (PROVIDED BY OTHERS)
GAS RISER BRACKET (PROVIDED BY STERIS)
STANDARD 4" JUNCTION BOX (PROVIDED BY OTHERS)
PVC FLEXIBLE CONDUIT (PROVIDED BY STERIS)

Figure 10-5. Junction Box 6 x 6 Detail

1. Locate hardware kit P/N P129387-619 (provided by STERIS) consisting of:

   P093933-105 –Junction Box –Bottomless (6 x 6"), Qty. 1

   P124290-106 –Screw 1/4"-20 UNC x 0.5" long, Qty. 8
   P150824-544 –Lock Washer 1/4", Qty. 8

   P093933-104 –Divider –Junction Box, Qty. 1

   P093933-098 –Plate, Junction Box – Bottom, Qty. 1

2. Locate junction box –bottomless 6 x 6” (152 x 152 mm).

3. Position junction box over one of the two 6” (152 mm) dia. access holes on top surface of structural plate holes. See Figure 10-6.

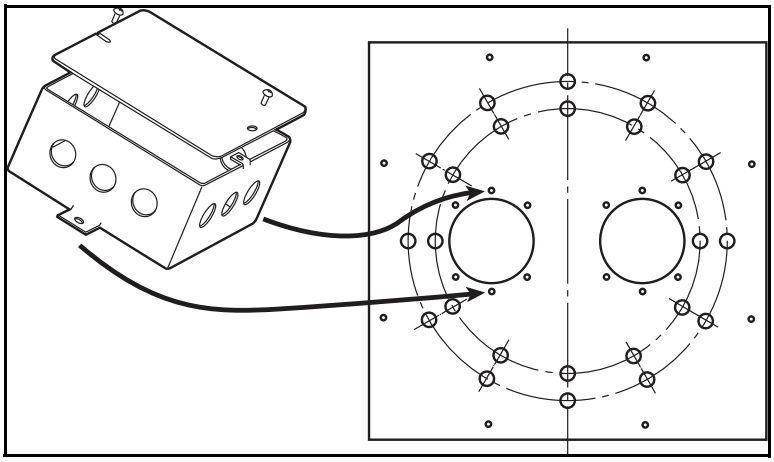


Figure 10-6. Position Junction Box Over Access Hole

4. Secure junction box using two screws 1/4”-20 UNC x 0.5” long.
5. Locate junction box bottom plate.
6. Position plate under the same 6” (152 mm) dia. access hole on the **bottom** surface of structural plate holes. See Figure 10-7.

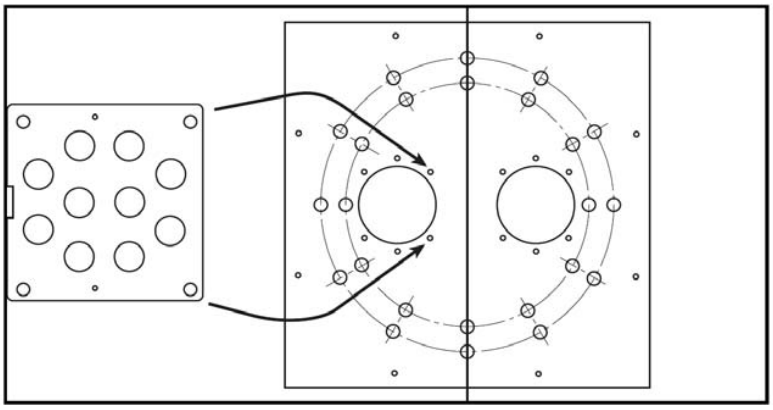


Figure 10-7. Position Plate Under Access Hole

7. Secure small plate to bottom surface of large structural plate using four screws 1/4”-20 UNC x 0.5” long by inserting screws into existing tapped holes in structural plate. See Figure 10-3.
8. Attach divider (if required) by using #8-32 UNC x 3/8 screws (provided by STERIS). See Figure 10-7.

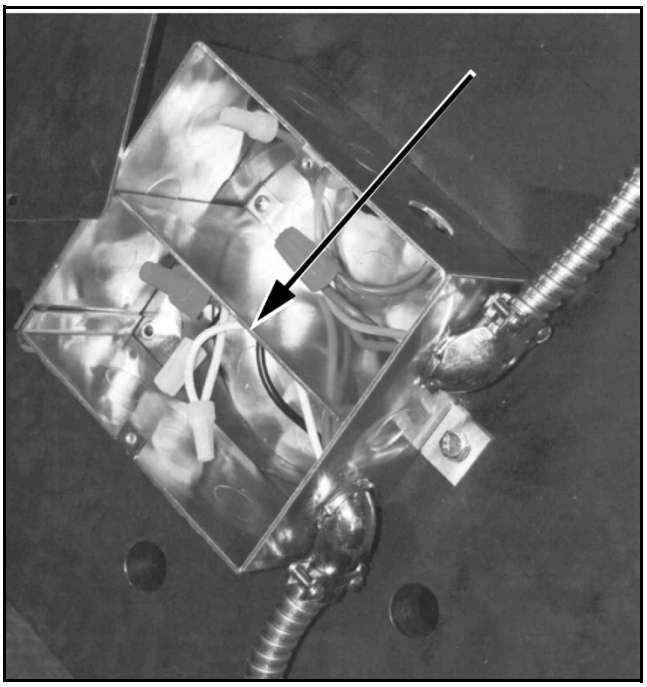


Figure 10-8. Attach Divider

Connect Duplex/Simplex Circuits

9. Knock out one (of 10 provided) 7/8" dia. access holes in junction box bottom plate.
10. Carefully route electrical conduit up to this small plate and insert stranded conductors through the 7/8" dia. hole.
11. Secure (bulkhead mount) flexible conduit connector(provided by STERIS) to bottom of plate by using plastic nut (provided by STERIS).
12. Secure green chassis ground wire (running external to black flexible conduit) using 1/4" green ground screw and 1/4" star washer (provided by STERIS) to bottom surface of Customer support structure plate. See Figure 10-9.
13. Use crimp nuts (provided by STERIS) to securely connect each circuit to power supply.
14. Locate Customer supplied dedicated ground wire and run wire to ground screw on structural plate. See Figure 10-9.

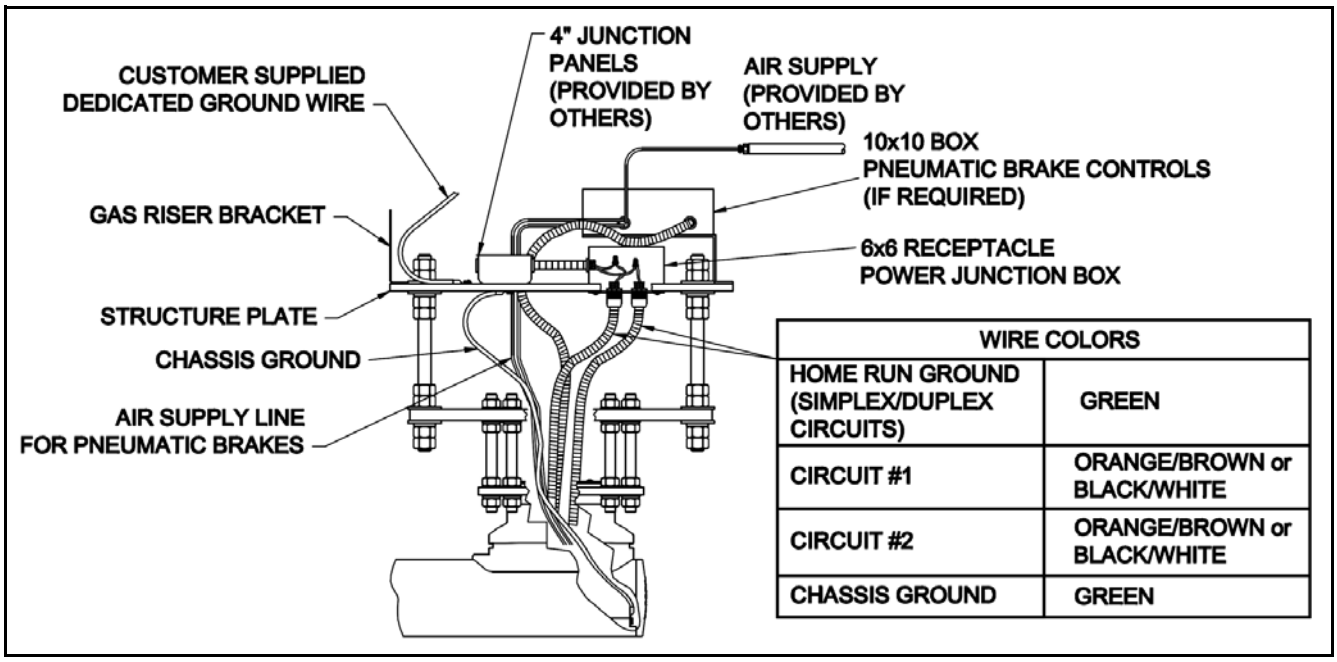


Figure 10-9. Secure Chassis Ground Wire

15. Verify resistance between ground screw and junction boxes does not exceed 0.1 Ohm.
16. Run a continuity test on all electrical connections.
17. Run an insulation test per conduit.
18. Replace access panel.
19. Turn electrical supply ON.
20. Verify all circuits are operating properly by measuring output voltages.
21. Turn electrical supply OFF.

NOTE: *Customer must bring power via Customer supplied metal conduit to junction box (provided by STERIS)*

a. Knock out the 7/8" dia. access holes in the side of junction box. See Figure 10-2 and Figure 10-10.

b. Secure Customer supplied metal conduit to junction box.

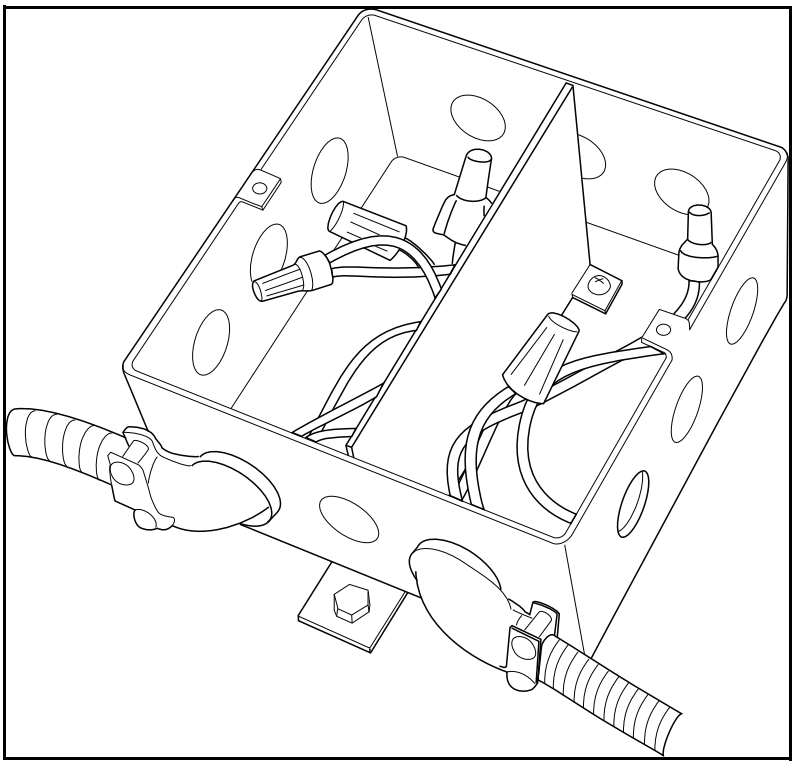


Figure 10-10. Secure Metal Conduit to Junction Box

Important: Verify all electrical power is OFF before making final connection.

***NOTE:** Stranded conductors installed by Customer must be filled with wire end connector sleeves or via use of a crimp nut.*

NOTE: A terminal block is not provided by STERIS.

c. Connect power supply lines using Customer supplied onsite circuit diagram and in conjunction with STERIS circuit diagram. See Figure 10-11.

d. Use crimp nuts to securely connect circuit to above ceiling electrical supply.

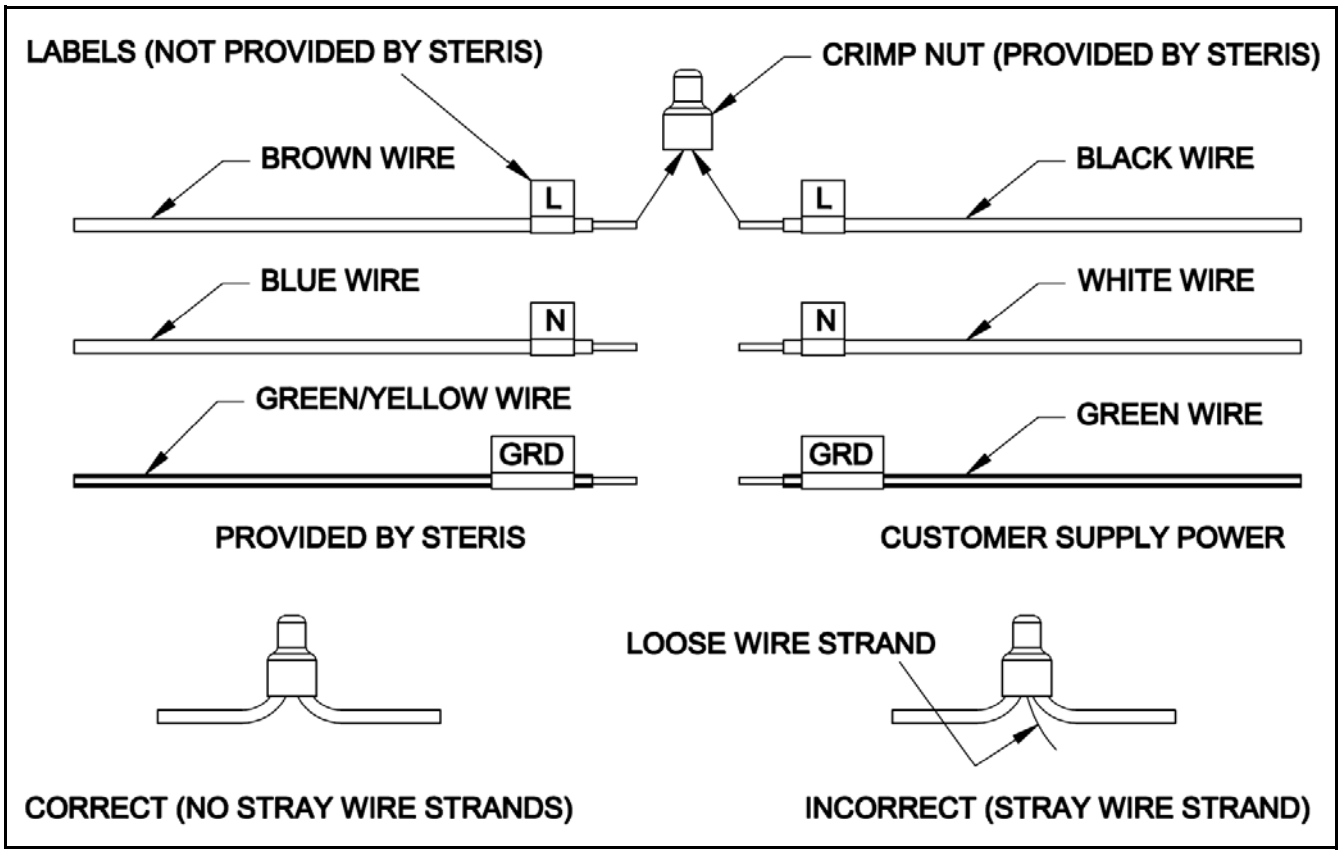


Figure 10-11. Wire Detail

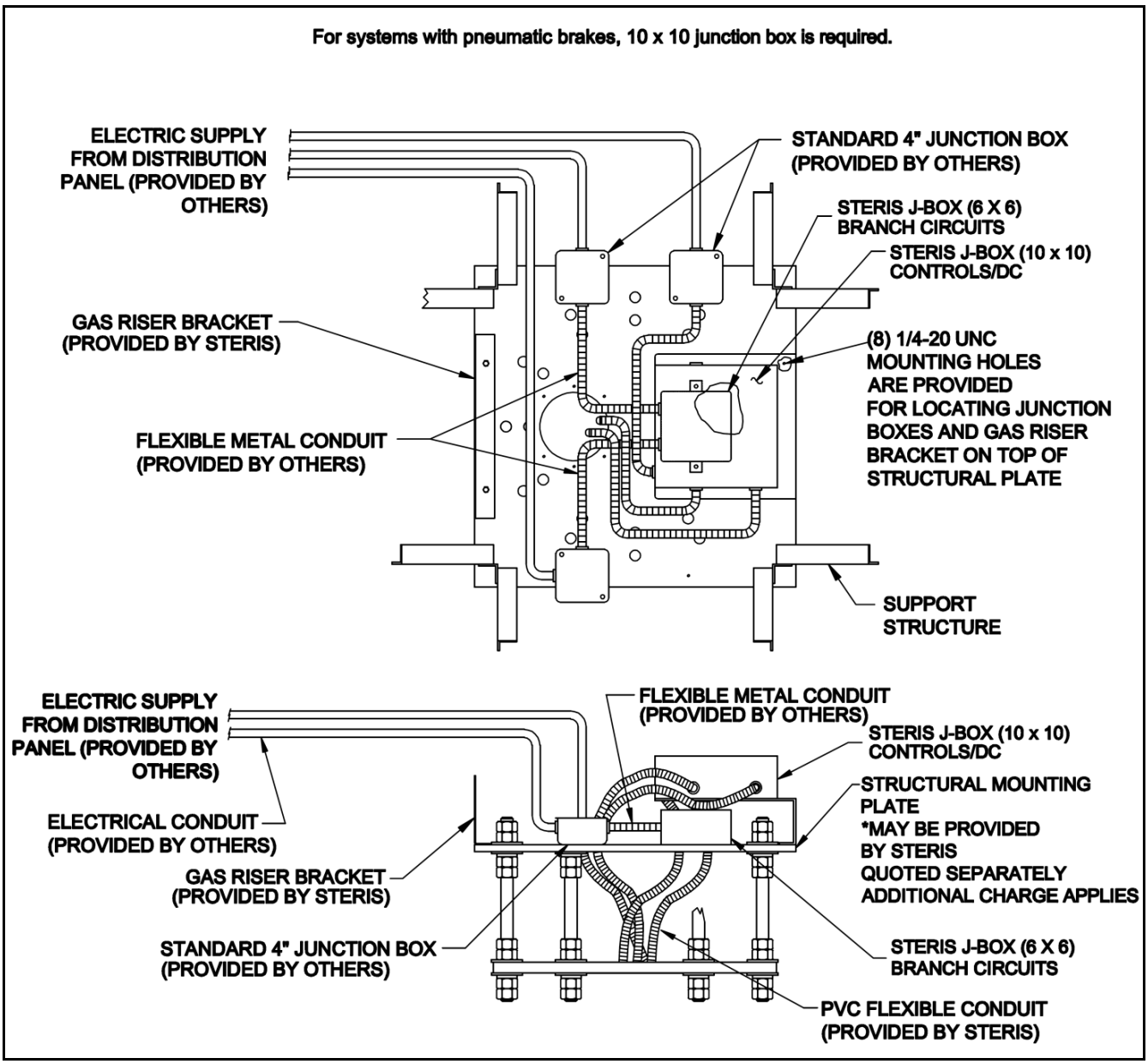

For systems with pneumatic brakes, 10 x 10 junction box is required.
ELECTRIC SUPPLY FROM DISTRIBUTION PANEL (PROVIDED BY OTHERS)
STANDARD 4" JUNCTION BOX (PROVIDED BY OTHERS)
STERIS J-BOX (6 X 6) BRANCH CIRCUITS
STERIS J-BOX (10 x 10) CONTROLS/DC
GAS RISER BRACKET (PROVIDED BY STERIS)
(8) 1/4-20 UNC MOUNTING HOLES ARE PROVIDED FOR LOCATING JUNCTION BOXES AND GAS RISER BRACKET ON TOP OF STRUCTURAL PLATE
FLEXIBLE METAL CONDUIT (PROVIDED BY OTHERS)
SUPPORT STRUCTURE
ELECTRIC SUPPLY FROM DISTRIBUTION PANEL (PROVIDED BY OTHERS)
FLEXIBLE METAL CONDUIT (PROVIDED BY OTHERS)
STERIS J-BOX (10 x 10) CONTROLS/DC
STRUCTURAL MOUNTING PLATE *MAY BE PROVIDED BY STERIS QUOTED SEPARATELY ADDITIONAL CHARGE APPLIES
ELECTRICAL CONDUIT (PROVIDED BY OTHERS)
GAS RISER BRACKET (PROVIDED BY STERIS)
STANDARD 4" JUNCTION BOX (PROVIDED BY OTHERS)
STERIS J-BOX (6 X 6) BRANCH CIRCUITS
PVC FLEXIBLE CONDUIT (PROVIDED BY STERIS)

Figure 10-12. Junction Box 10 x 10 Detail

10.4 Connection of Low Voltage Services

See Figure 10-1.

Low voltage wires run through intermediate mounting plate and Customer structure plate and terminate at 10 x 10 junction box.

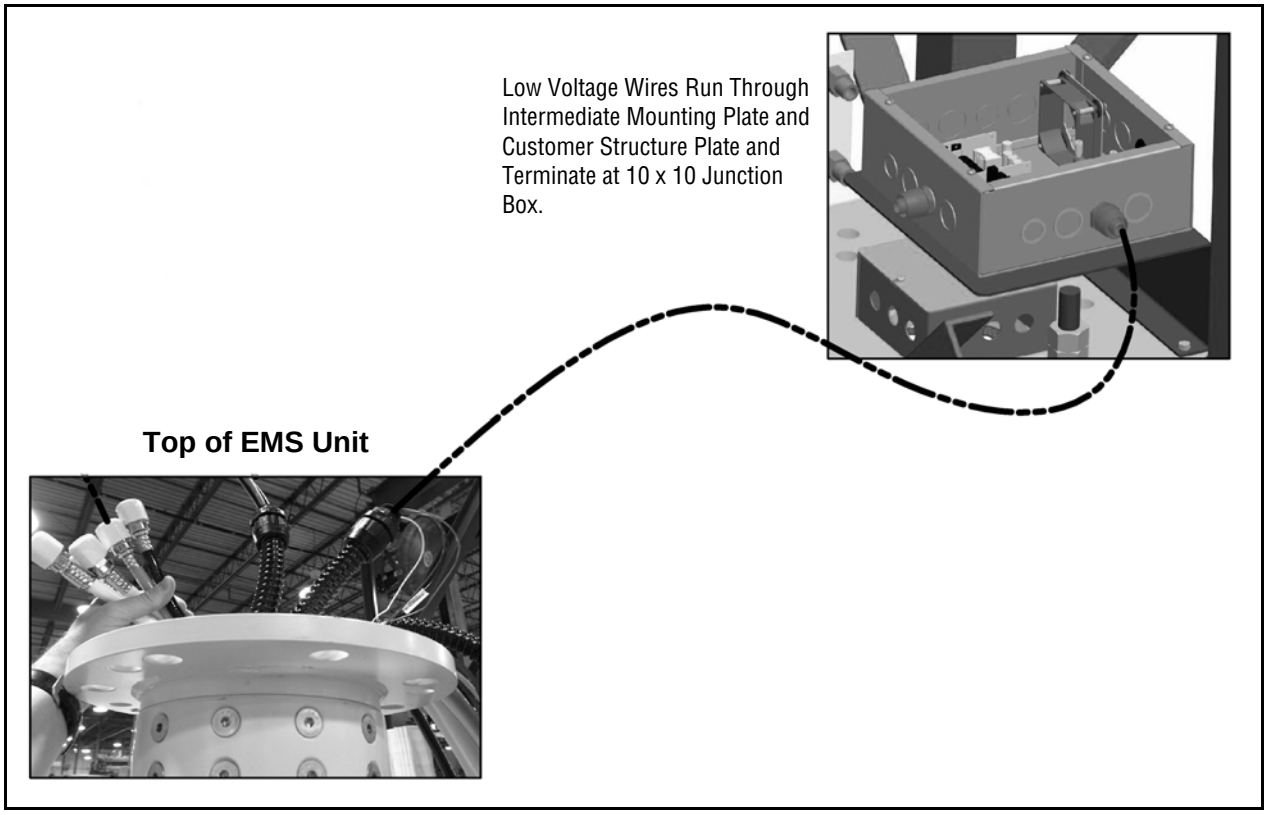

Low Voltage Wires Run Through Intermediate Mounting Plate and Customer Structure Plate and Terminate at 10 x 10 Junction Box.
Top of EMS Unit

Figure 10-13. Low Voltage Wires

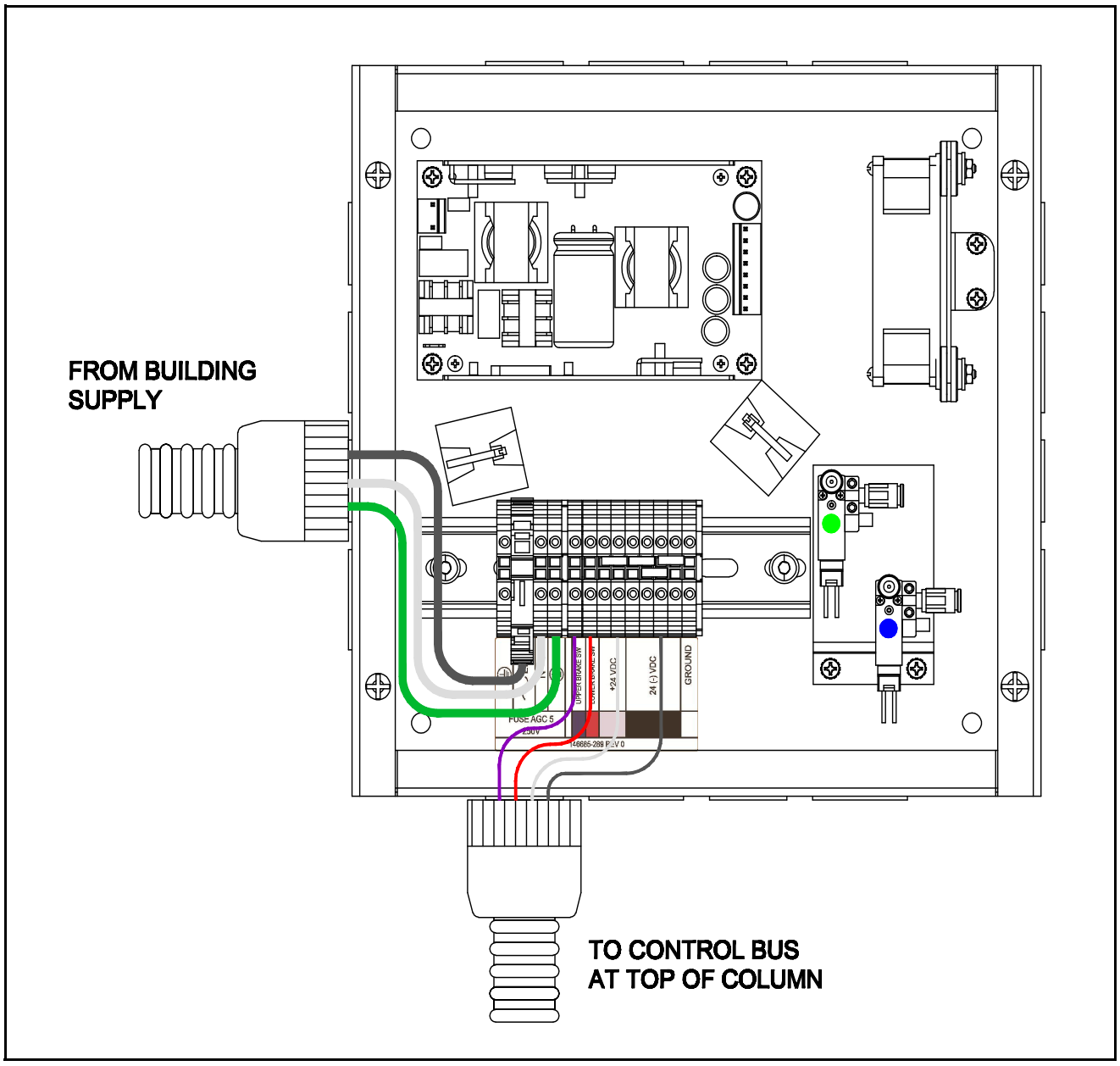


Figure 10-14. Wiring Detail

Control Box Fuse: AGC 5 Amp Fuse:

- Fast-acting, glass tube
- UL listed product meets standard 248-14
- UL Recognition Card: AGC 11-45
- CSA Certification Card (Class No. 1422 01)
- Blow speed: 100 millisecond at 6 Amp

Table 10-1. AGC 5 Amp Fuse

AGC 5 Amp Fuse Specifications						
Voltage Rating AC	**AC Interrupting Rating 125 V**			**Typical DC Cold Resistance (ohms)***	**Typical Melting I^2t† AC**	**Typical Voltage Drop**
	250 V	**125 V**	**32 V**			
250	200 A	10000 A	–	0.024	0.045	0.23

* DC cold resistance (measured at ≤10% of rated current)

† Typical melting I^2t (A^2Sec) (I^2t was measured at listed interrupting rating and rated voltage)

NOTE: *The control wiring and fuse rating (AGC 5 amp) are shown in* Figure 10-15*.*

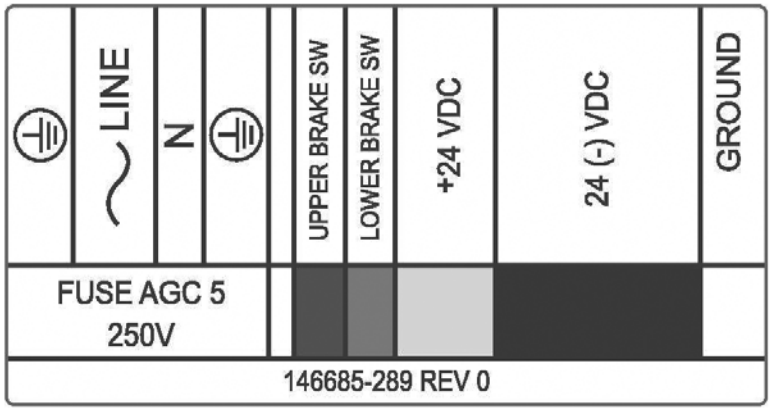


Figure 10-15. Control Wiring

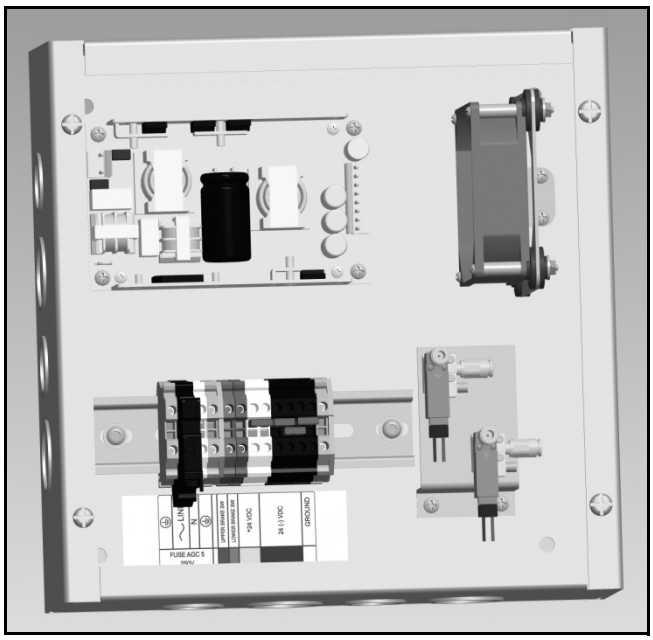


Figure 10-16. Control Box 10 x 10 Layout

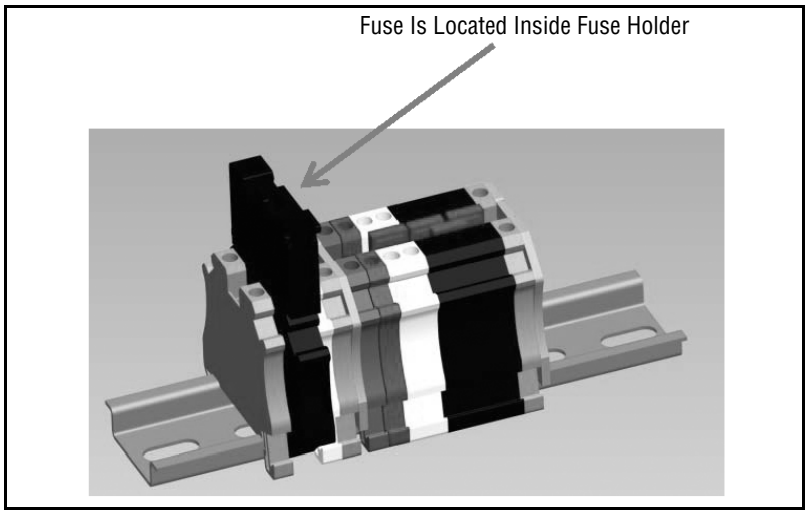


Figure 10-17. Location of Fuse

NOTE: *For EMS units that require pneumatic braking systems, a 10 x 10 control box is required. (See* Figure 10-16*).*

1. Locate hardware needed (provided by STERIS) consisting of:

   P146685-938 – Bracket, 10 x10 Junction Box

   P124290-106 – Screw 1/4-20 UNC x 0.5" long, Qty. 2

   P124359-105 – Lock Washer 1/4", Qty. 6

   P124355-101 – Nut 1/4-20 UNC regular, Qty. 8

   P011266-045 – Screw 1/4-20 UNC x 1 hex socket, Qty. 4

2. Locate Control Box Assembly –10 x 10 (STERIS part number P146685-288)
3. Remove cover and secure junction box to mounting bracket using 1/4”-20 UNC x 1” socket head screws, nuts and lock washers located in step 1. See Figure Figure 10-18.
4 Secure mounting bracket to structure plate per equipment drawing shown in Figure 10-9 and Figure 10-18Use the remaining 1/4”-20 UNC x 0.5" screws and 1/4” lock washers.

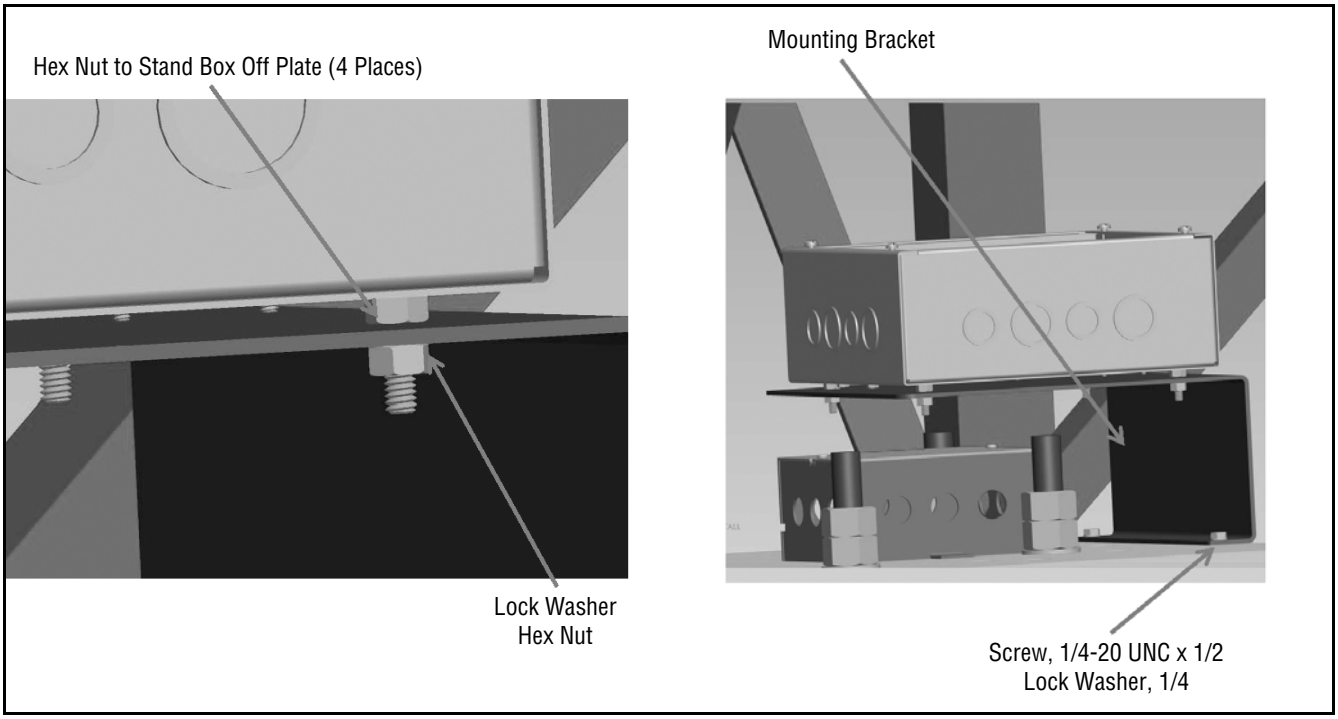


Figure 10-18. Junction Box Mounting Detail

Connect Pneumatic Brake Wiring

5. Knock out one 7/8" dia. Access hole in junction box side.
6. Carefully route electrical conduit up to junction box and insert stranded conductors through the 7/8" dia. hole.
7. Secure (bulkhead mount) flexible conduit connector (provided by STERIS) to side of junction box by using plastic nut (provided by STERIS).

8. Connect the appropriate wires coming from the building power to the left side of the terminal blocks in the sections that are marked (see Figure 10-15)
9. Knock out the 7/8" dia. hole shown in Figure 10-19.
10. Carefully route electrical conduit to junction box and insert stranded conductors through the 7/8” dia. Hole.
11. Secure (bulkhead mount) flexible conduit connector (provided by STERIS) to side of junction box by using plastic nut (provided by STERIS).
12. Connect wires to the appropriately colored sections on the terminal block as shown in the label (see Figure 10-15).

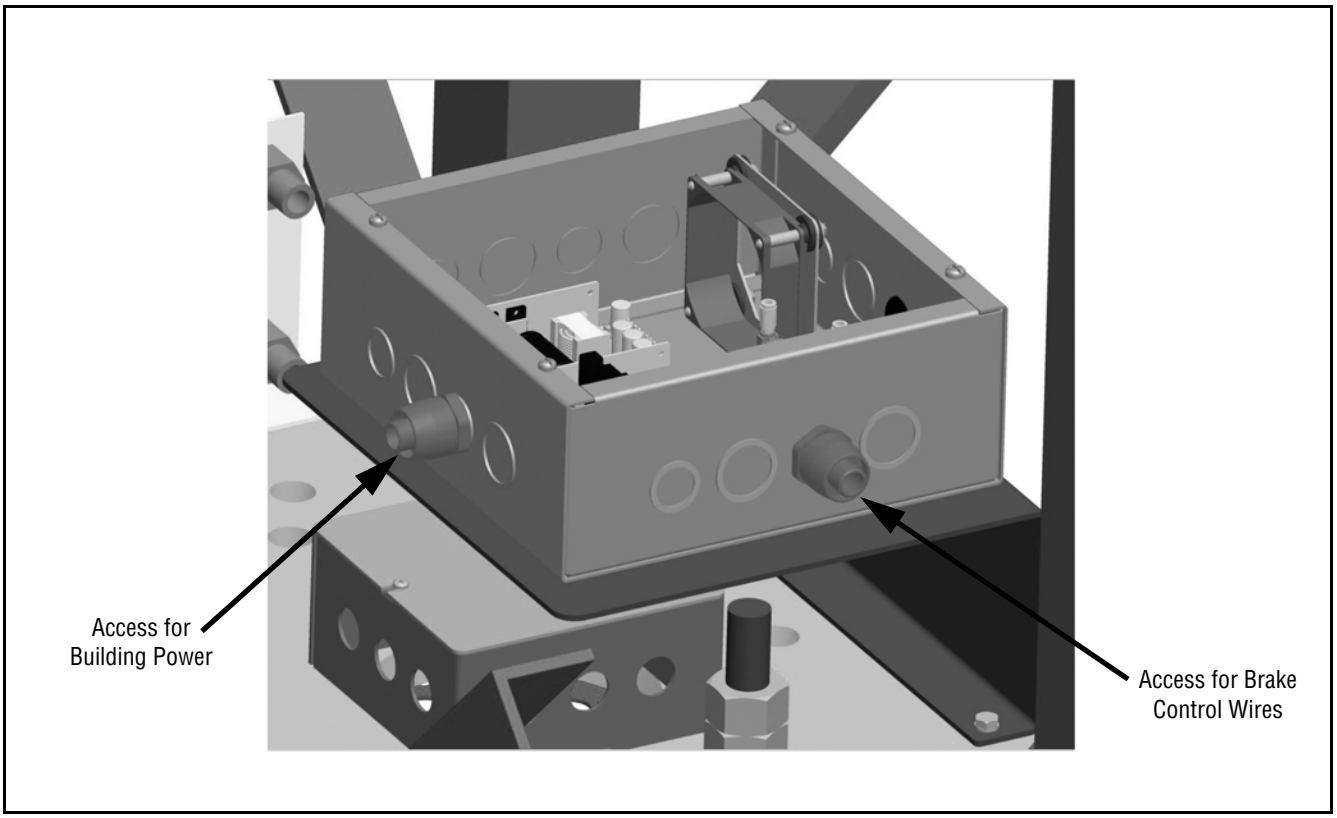


Figure 10-19. Air Brake Control Conduit Locations

10.5 Connect Air Brake Supply Line(s)

1. Knock out one 7/8" dia. access hole (see Figure 10-20).
2. Install grommet (STERIS P/N P118292-091) in access hole. Air hoses will be routed out of the junction box through this grommet.
3. Locate 1/8" NPT compression fitting (provided by STERIS) and connect it to the customer air supply line.
4. Connect nylon tubing to the compression fitting and run a hose through the bulkhead fitting and connect it to the compression "T" that should connect the two horizontal ports on the air valves.
5. Connect nylon hose to the vertical port on each of the air valves and route the hose through the bulkhead fitting and down into the column to the appropriate bearing brake bladder (green dot for upper arm, blue dot for lower arm).
6. Set regulator pressure at 40-45 psi.
7. Connect building supply to regulator.
8. Test operation of air brakes.

Important: Air supply line must be regulated to required pressure near the connection point.

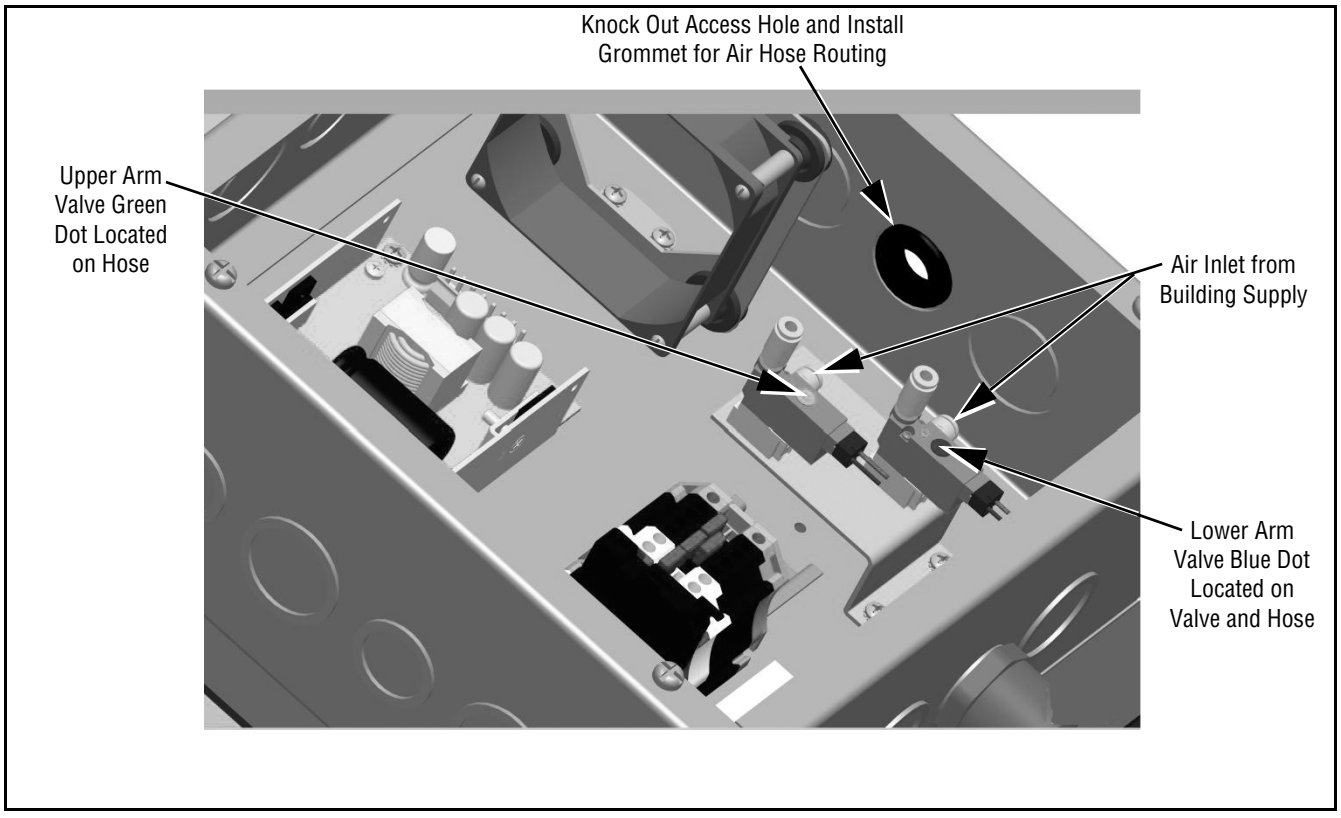

Knock Out Access Hole and Install Grommet for Air Hose Routing
Upper Arm Valve Green Dot Located on Hose
Air Inlet from Building Supply
Lower Arm Valve Blue Dot Located on Valve and Hose

Figure 10-20. Pneumatic Valve Hose Connections

ACCESS COLUMN/HEAD INTERIOR

11

WARNING – ELECTRIC SHOCK AND BURN HAZARD: Disconnect all utilities to the Harmony Nexus Equipment Management System (EMS) before servicing. Do not service the EMS unit unless all utilities have been properly locked out. Always follow lockout-tagout and electrical safety-related work practice standards.

It may be necessary to access column or head to route integration.

1. To access column or head interior, remove all trim plates on panel cover (Figure 11-1). Once trim plates are removed, panel cover comes free.

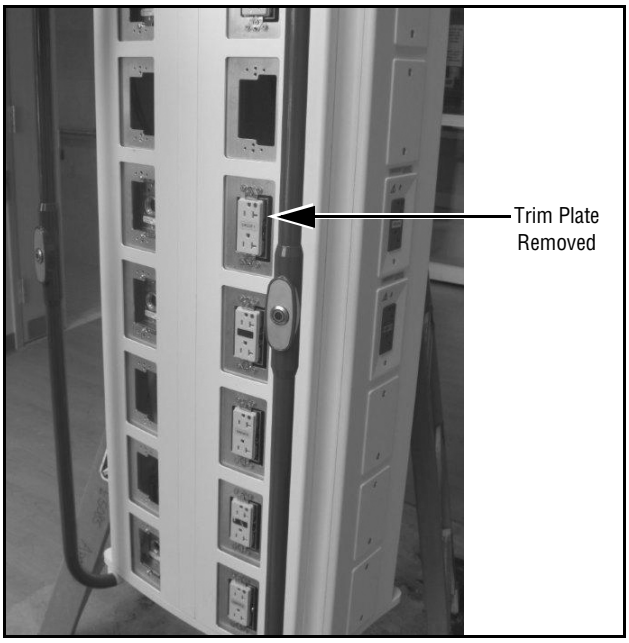


Figure 11-1. Trim Plates Removed

2. To access inside metal panel, remove screws at junction of panels (Figure 11-2). A hinge is located on the outer edge of the panel opposite the screws to allow metal panel to swing open. See Figure 11-3.

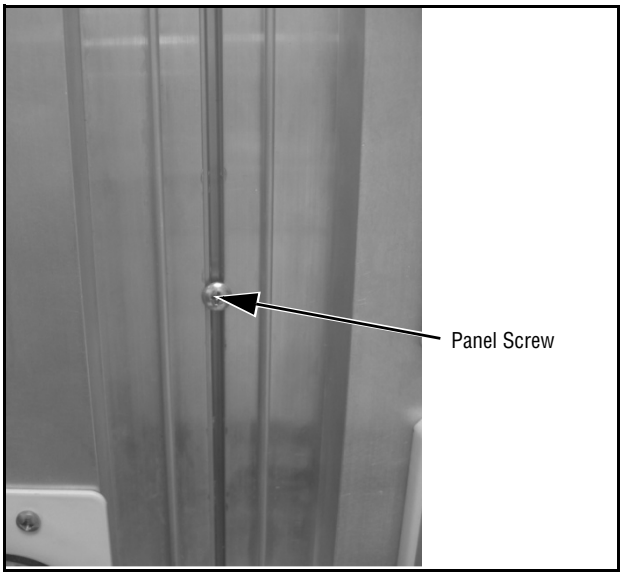


Figure 11-2. Panel Screws Securing Metal Panel

Figure 11-3. Open Metal Panel

FINAL CHECKOUT

12

12.1 General

Every unit must be tested and inspected according to this procedure whenever a part is adjusted, repaired or replaced. Items which do not comply to test procedures must be corrected or retested.

Important: Complete and mail in the Pre-In-service Checkout Card – P764331-894, to **begin** warranty period.

WARNING – PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Repairs and adjustments to this equipment should be made only by fully qualified service personnel. Maintenance performed by inexperienced, unqualified personnel or installation of unauthorized parts could cause personal injury, invalidate the warranty, or result in costly damage. Contact your STERIS Engineering Service representative regarding service options.

12.2 Test Instrumentation Required

- Voltmeter
- Ohmmeter
- Calibrated volumetric pressure test gauge – must read 0 to 200 psig (0 to 1,379 KpA)

12.3 Functional Test

1. Compressed air (if applicable) may be contaminated. Verify availability of nitrogen or industrial air.
2. Verify electrical supplies are connected to unit.
3. Verify rotational stops are set to prevent support head and accessories from striking walls or other equipment.
4. If motorized model, verify range of vertical motion.

12.4 Electrical Test

1. Measure voltage at each electrical receptacle. Measured voltage should be equal to voltage supplied to unit.
2. Check each grounding pin for impedance (0.1 ohms maximum).

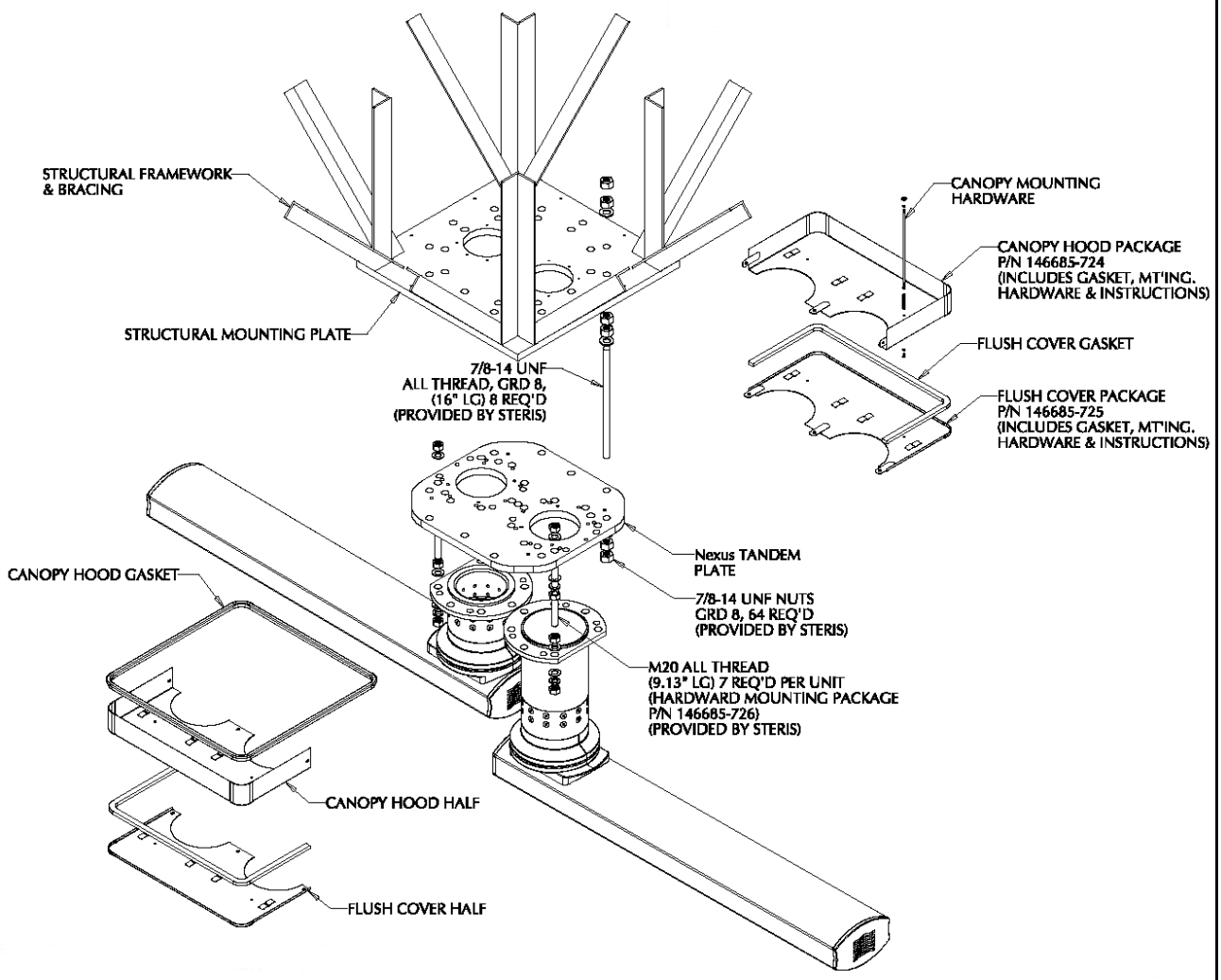
12.5 Supply Lines Check

1. Check gases, medical air and compressed air pressures supplied to unit. Refer to equipment drawing for recommended pressures.
2. Check correct gases are supplied to proper corresponding outlets.
3. Inspect all lines for chafing or kinking.
4. Using leak detection fluid, check all line connections for leaks.

NOTE: *NFPA certification and/or verification of gas supply lines is not by STERIS.*

12.6 Leakage Test (not provided by STERIS)

Leakage test, using clean, oil-free, dry Nitrogen, for all gas lines (during test procedure) in accordance with applicable codes.


STRUCTURAL FRAMEWORK & BRACING
STRUCTURAL MOUNTING PLATE
7/8-14 UNF ALL THREAD, GRD 8, (16" LG) 8 REQ'D (PROVIDED BY STERIS)
CANOPY MOUNTING HARDWARE
CANOPY HOOD PACKAGE P/N 146685-724 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
FLUSH COVER GASKET
FLUSH COVER PACKAGE P/N 146685-725 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
Nexus TANDEM PLATE
7/8-14 UNF NUTS GRD 8, 64 REQ'D (PROVIDED BY STERIS)
M20 ALL THREAD (9.13" LG) 7 REQ'D PER UNIT (HARDWARD MOUNTING PACKAGE P/N 146685-726) (PROVIDED BY STERIS)
CANOPY HOOD GASKET
CANOPY HOOD HALF
FLUSH COVER HALF

Mount #1 Nexus EMS

Mount #2 Nexus EMS

Figure 13-1.

Mount #1 Nexus EMS

Mount #2 Nexus EMS

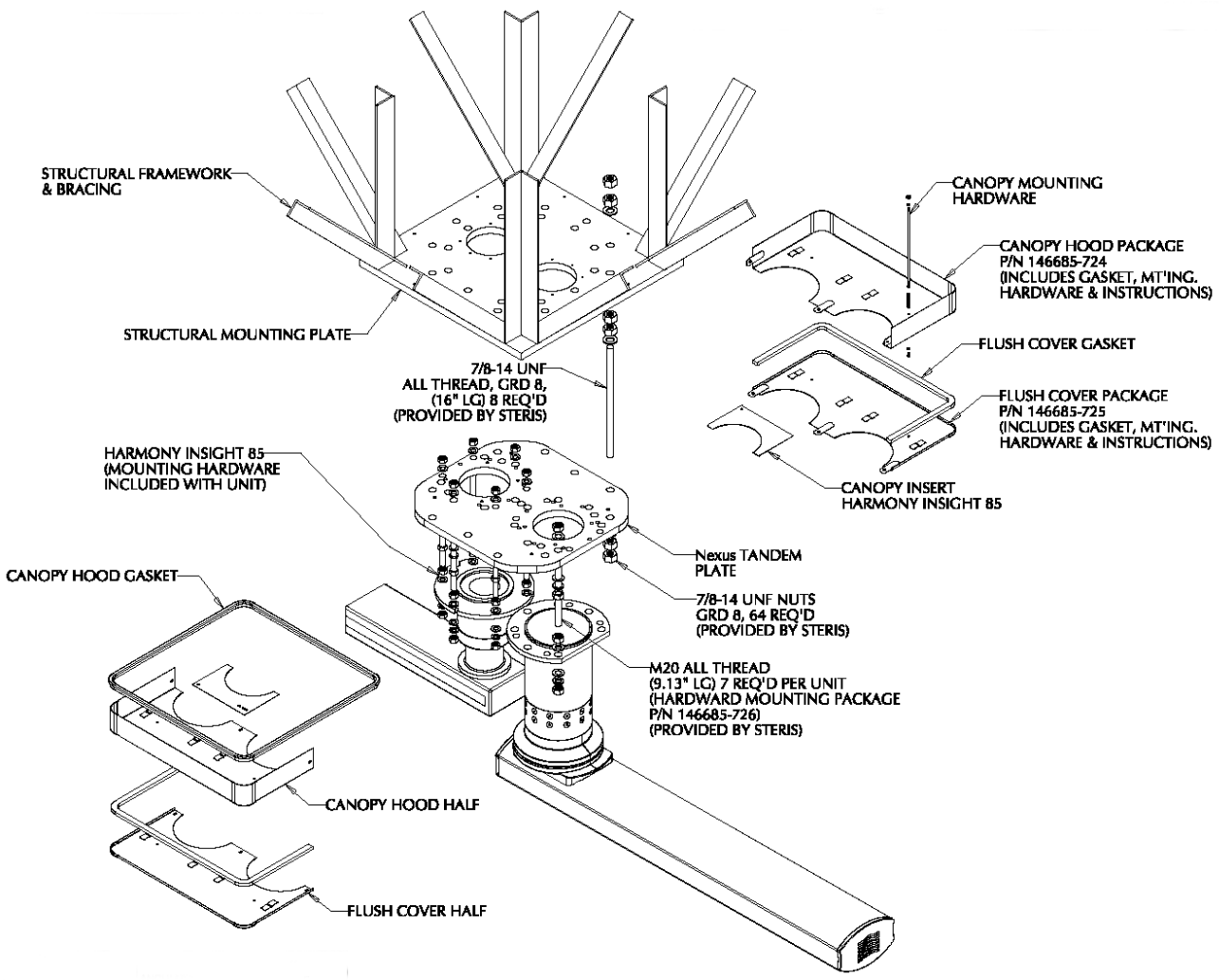
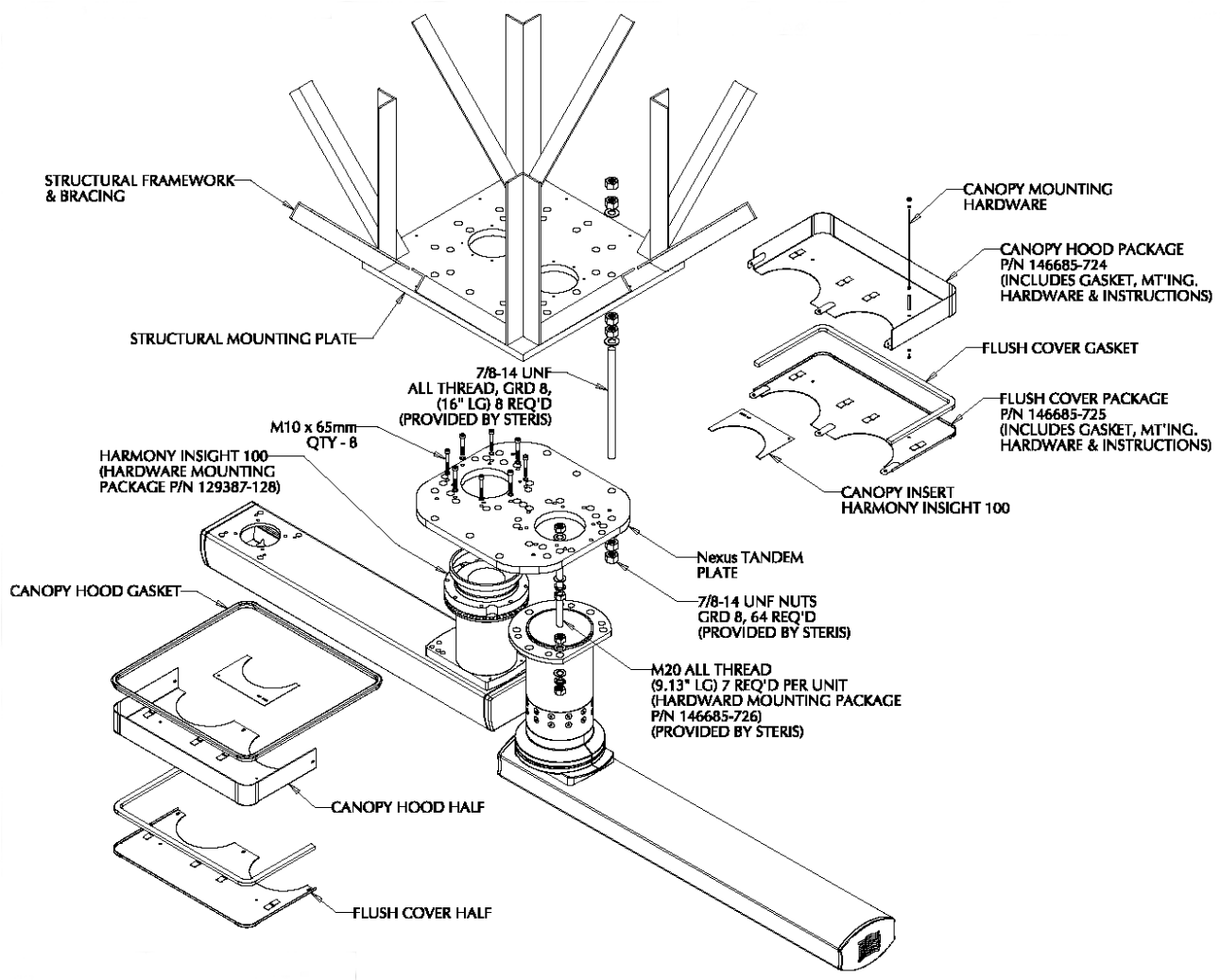

STRUCTURAL FRAMEWORK & BRACING
STRUCTURAL MOUNTING PLATE
7/8-14 UNF ALL THREAD, GRD 8, (16" LG) 8 REQ'D (PROVIDED BY STERIS)
CANOPY MOUNTING HARDWARE
CANOPY HOOD PACKAGE P/N 146685-724 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
FLUSH COVER GASKET
FLUSH COVER PACKAGE P/N 146685-725 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
CANOPY INSERT HARMONY INSIGHT 85
HARMONY INSIGHT 85 (MOUNTING HARDWARE INCLUDED WITH UNIT)
Nexus TANDEM PLATE
7/8-14 UNF NUTS GRD 8, 64 REQ'D (PROVIDED BY STERIS)
M20 ALL THREAD (9.13" LG) 7 REQ'D PER UNIT (HARDWARD MOUNTING PACKAGE P/N 146685-726) (PROVIDED BY STERIS)
CANOPY HOOD GASKET
CANOPY HOOD HALF
FLUSH COVER HALF
Mount #1 Insight 85
Mount #2 Nexus EMS

Figure 13-2.

Mount #1 Insight 85

Mount #2 Nexus EMS


STRUCTURAL FRAMEWORK & BRACING
STRUCTURAL MOUNTING PLATE
7/8-14 UNF ALL THREAD, GRD 8, (16" LG) 8 REQ'D (PROVIDED BY STERIS)
M10 x 65mm QTY - 8
HARMONY INSIGHT 100 (HARDWARE MOUNTING PACKAGE P/N 129387-128)
CANOPY HOOD GASKET
CANOPY HOOD HALF
FLUSH COVER HALF
Nexus TANDEM PLATE
7/8-14 UNF NUTS GRD 8, 64 REQ'D (PROVIDED BY STERIS)
M20 ALL THREAD (9.13" LG) 7 REQ'D PER UNIT (HARDWARD MOUNTING PACKAGE P/N 146685-726) (PROVIDED BY STERIS)
CANOPY MOUNTING HARDWARE
CANOPY HOOD PACKAGE P/N 146685-724 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
FLUSH COVER GASKET
FLUSH COVER PACKAGE P/N 146685-725 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
CANOPY INSERT HARMONY INSIGHT 100

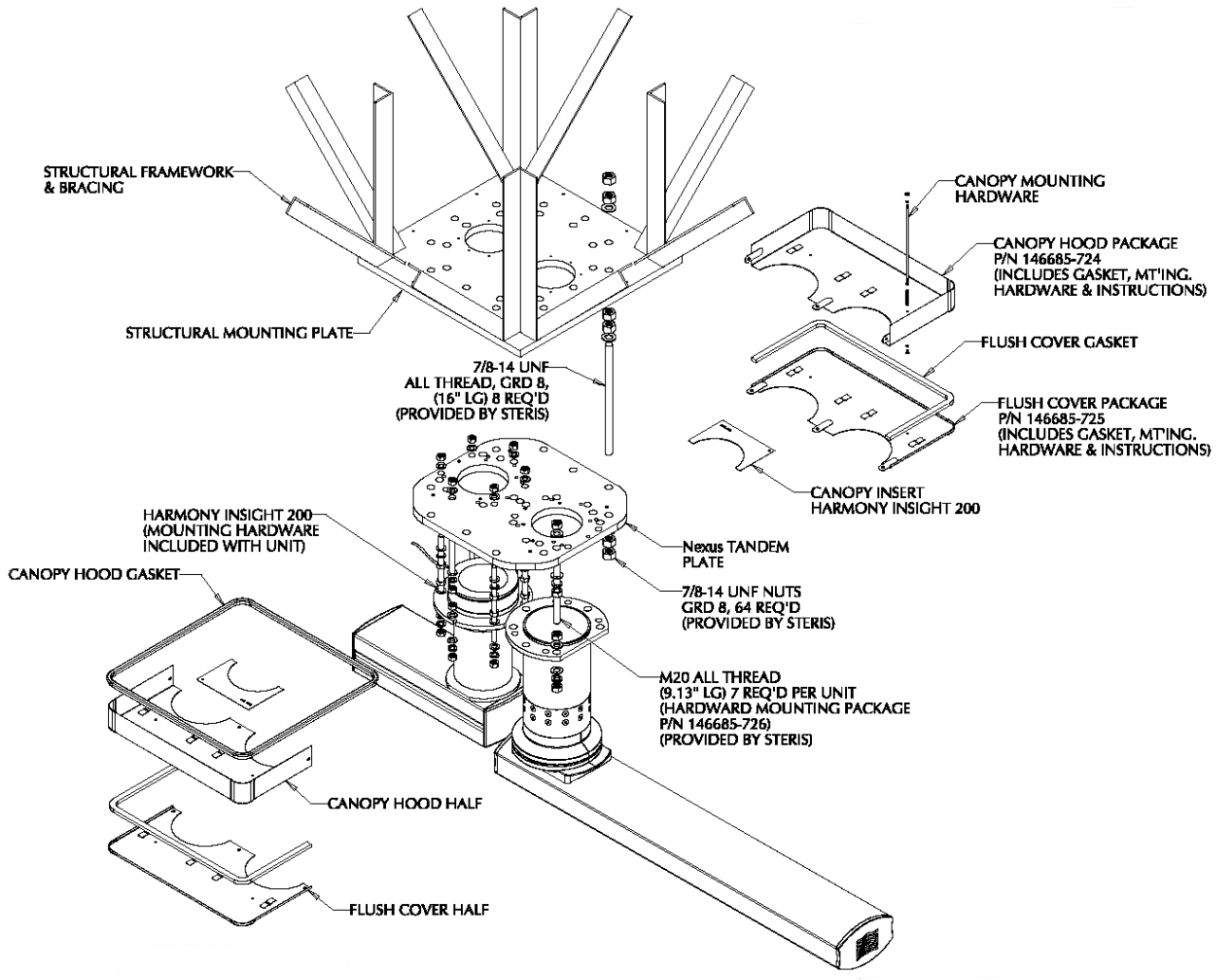
Mount #1 Insight 100

Mount #2 Nexus EMS

Figure 13-3.

Mount #1 Insight 100

Mount #2 Nexus EMS



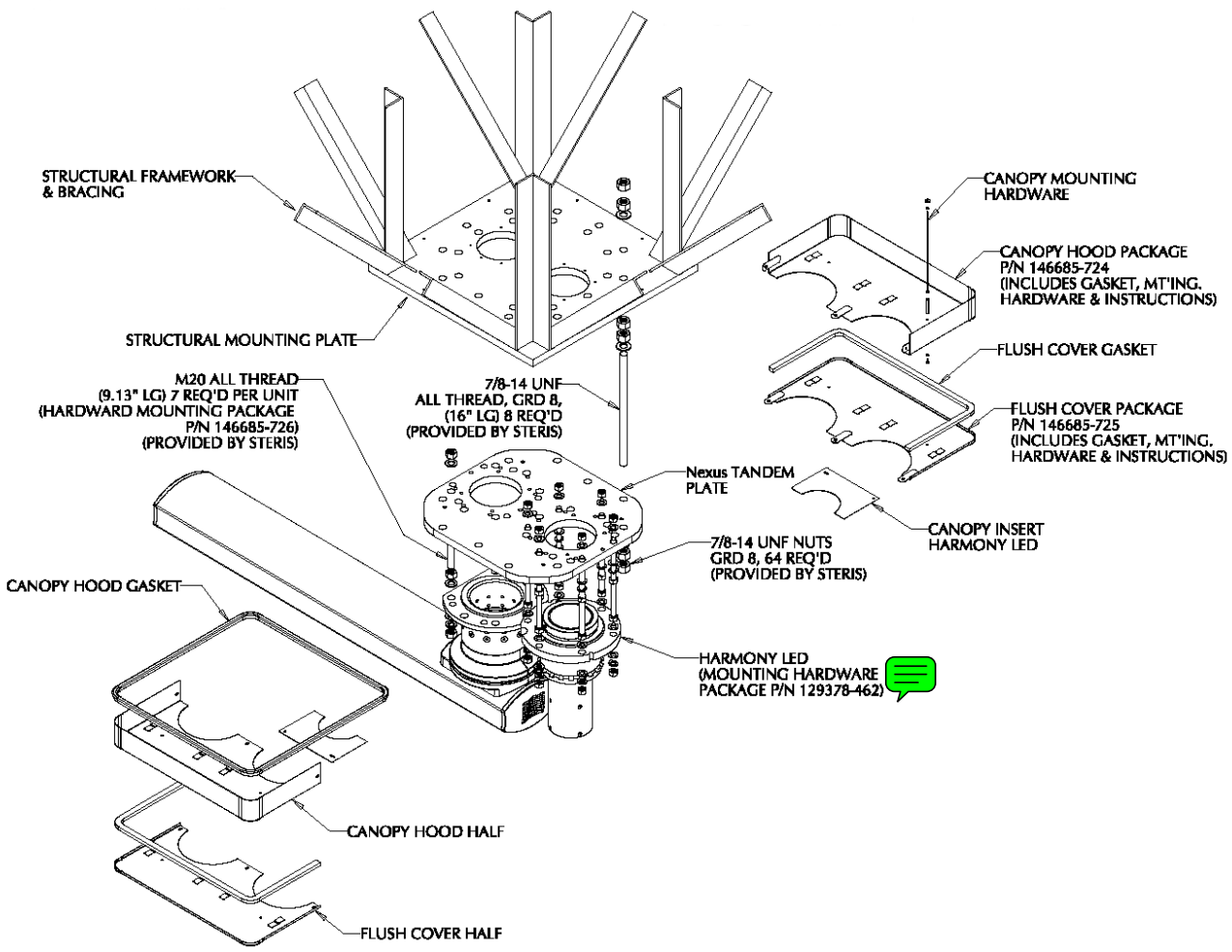
Mount #1 Insight 200

Mount #2 Nexus EMS

Figure 13-4.

Mount #1 Insight 200

Mount #2 Nexus EMS


STRUCTURAL FRAMEWORK & BRACING
STRUCTURAL MOUNTING PLATE
M20 ALL THREAD (9.13" LG) 7 REQ'D PER UNIT (HARDWARD MOUNTING PACKAGE P/N 146685-726) (PROVIDED BY STERIS)
7/8-14 UNF ALL THREAD, GRD 8, (16" LG) 8 REQ'D (PROVIDED BY STERIS)
CANOPY MOUNTING HARDWARE
CANOPY HOOD PACKAGE P/N 146685-724 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
FLUSH COVER GASKET
FLUSH COVER PACKAGE P/N 146685-725 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
Nexus TANDEM PLATE
CANOPY INSERT HARMONY LED
7/8-14 UNF NUTS GRD 8, 64 REQ'D (PROVIDED BY STERIS)
CANOPY HOOD GASKET
HARMONY LED (MOUNTING HARDWARE PACKAGE P/N 129378-462)
CANOPY HOOD HALF
FLUSH COVER HALF

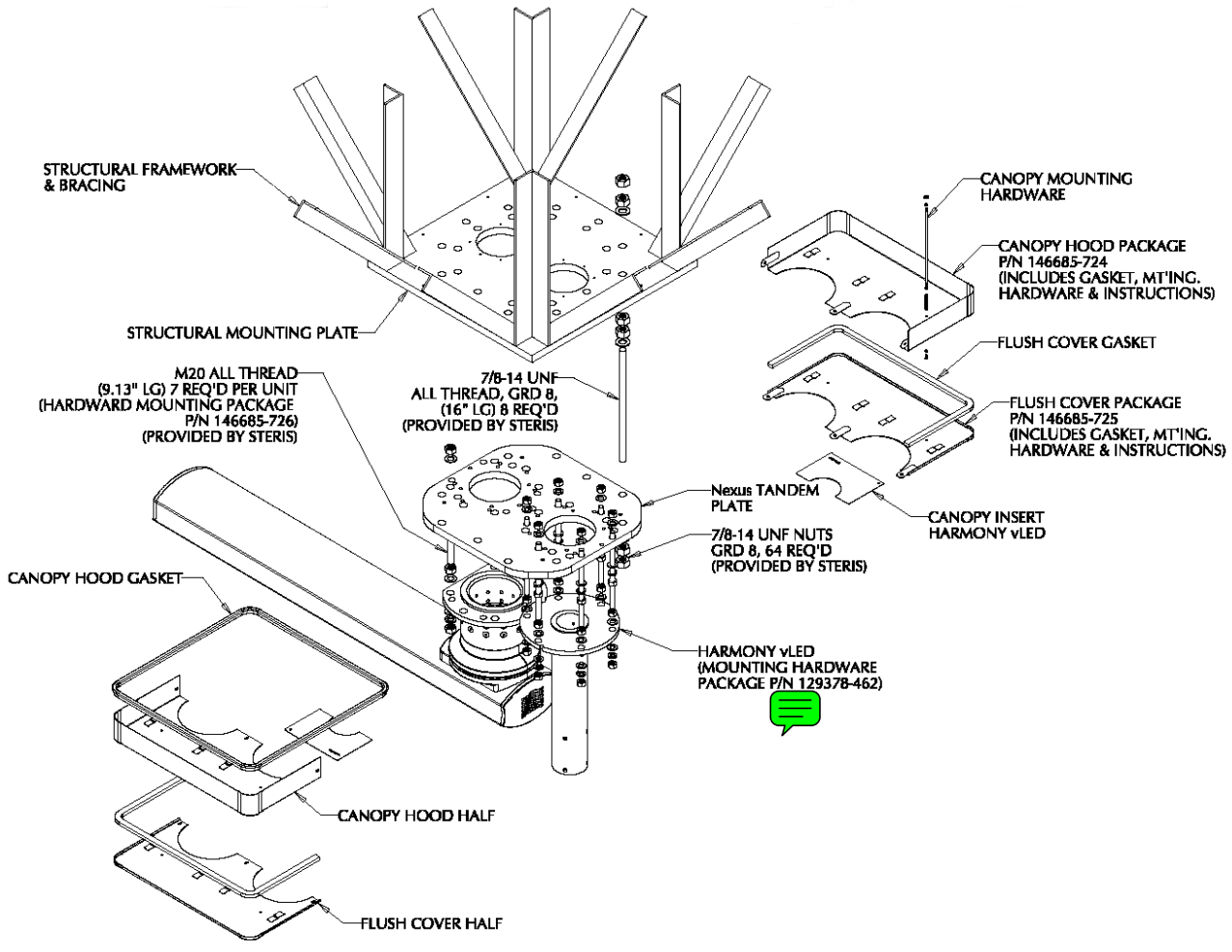
Mount #1 Nexus EMS

Mount #2 Harmony LED

Figure 13-5.

Mount #1 Nexus EMS

Mount #2 Harmony LED



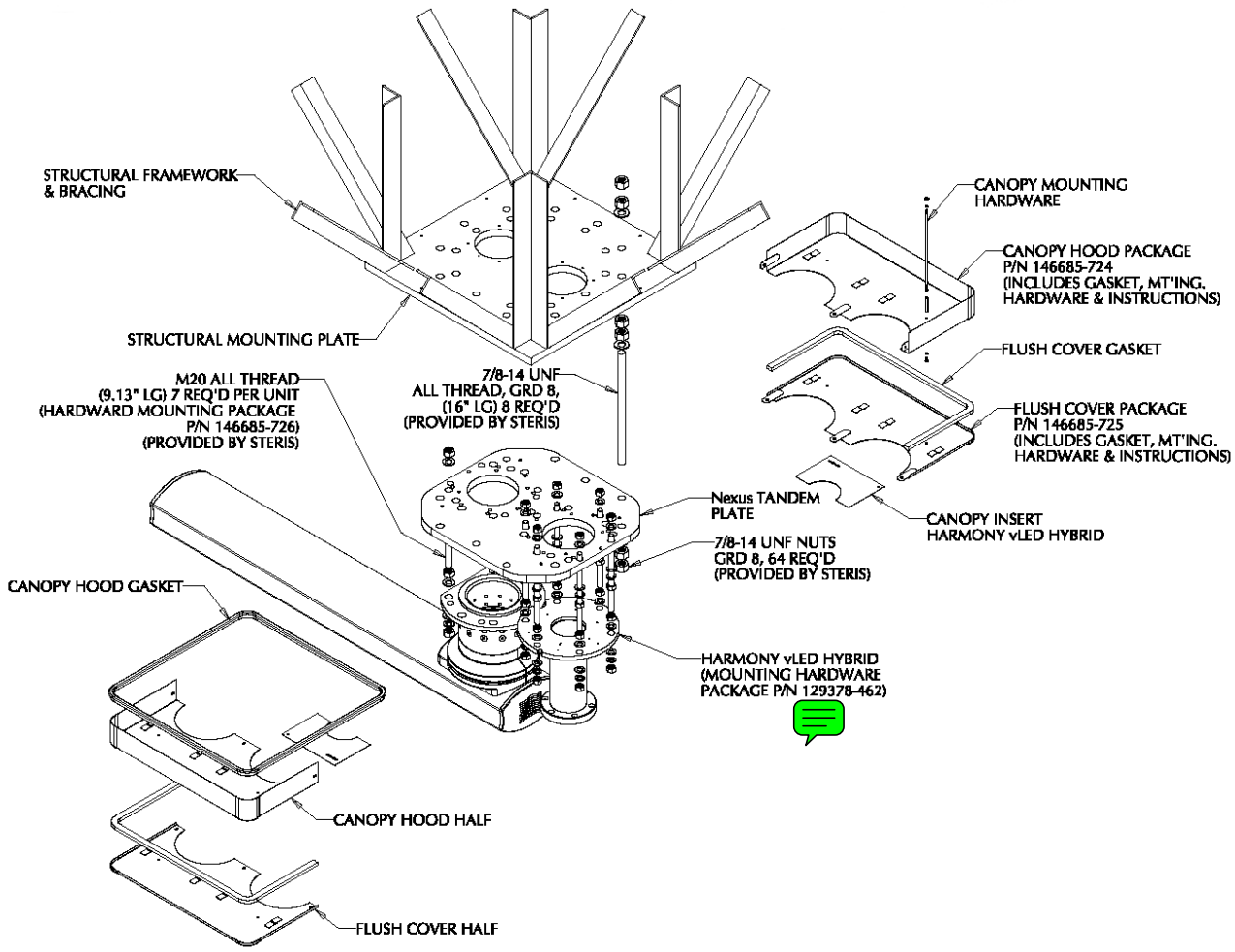
Mount #1 Nexus EMS

Mount #2 Harmony vLED

Figure 13-6.

Mount #1 Nexus EMS

Mount #2 Harmony vLED


STRUCTURAL FRAMEWORK & BRACING
STRUCTURAL MOUNTING PLATE
M20 ALL THREAD (9.13" LG) 7 REQ'D PER UNIT (HARDWARD MOUNTING PACKAGE P/N 146685-726) (PROVIDED BY STERIS)
7/8-14 UNF ALL THREAD, GRD 8, (16" LG) 8 REQ'D (PROVIDED BY STERIS)
CANOPY MOUNTING HARDWARE
CANOPY HOOD PACKAGE P/N 146685-724 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
FLUSH COVER GASKET
FLUSH COVER PACKAGE P/N 146685-725 (INCLUDES GASKET, MT'ING. HARDWARE & INSTRUCTIONS)
CANOPY INSERT HARMONY vLED HYBRID
Nexus TANDEM PLATE
7/8-14 UNF NUTS GRD 8, 64 REQ'D (PROVIDED BY STERIS)
CANOPY HOOD GASKET
HARMONY vLED HYBRID (MOUNTING HARDWARE PACKAGE P/N 129378-462)
CANOPY HOOD HALF
FLUSH COVER HALF

Mount #1 Nexus EMS

Mount #2 Harmony vLED Hybrid

Figure 13-7.

Mount #1 Nexus EMS

Mount #2 Harmony vLED Hybrid

Live Document, Historical Table

Live Document Page Number	Figure Number/ Name	Manual Development Historical Record
(Front Cover)	Front Cover	**P**: Stamp "10/25/13 LIVE DOCUMENT" **C**: Document Manufacturing changes/manual errors and clarifications **A**: Stamped to show Live Document Date
13-5	Figure 13-5 Mount #1 Nexus EMS / Mount #2	P: Part number for the LED Mounting Package part number 129378-462 is the incorrect part number. R: The correct part number is 129387-926
(Front Cover)	Front Cover	**P**: Stamp "11/18/13 LIVE DOCUMENT" **C**: Document Manufacturing changes/manual errors and clarifications **A**: Stamped to show Live Document Date
13-6	Figure 13-6 Mount #1 Nexus EMS/ Mount #2 Harmony vLED	P: Part number for the Harmony vLED Mounting Hardware Package part number P129378-462 is the incorrect part number R: The correct part number is P129387-926
13-7	Figure 13-7 Mount#1 Nexus EMS/ Mount# 2 Harmony vLED Hybrid	P: Part number for the Harmony vLED Mounting Hardware Package part number P129378-462 is the incorrect part number R: The correct part number is P129387-926